

REVISTA ESPAÑOLA DE DEFENSA

Exercise Steadfast Dart 25

NATO's response capability

ARMADA 2050
Insight from the
Chief of Naval Staff





REVISTA ESPAÑOLA DE DEFENSA

HABLAMOS de Defensa

37 años de información de calidad

A coordinated and rapid reaction force

STEADFAST Dart 25, NATO's largest exercise this year, has yielded positive results that will be crucial in facing future challenges. During twelve days of intensive exercises in Bulgaria, Greece and Romania, forces from nine European countries, including Spain, demonstrated their ability to respond and integrate in a multinational joint operation.

The exercise served to test the Allied Reaction Force (ARF), which on this occasion conducted its first ever large-scale deployment since it replaced the NATO Response Force (NRF) in July 2024. Capable of deploying in a very short time and increasing its composition through scalable force packages, the ARF is the backbone of the new structure with which NATO seeks to adjust to the current strategic environment, particularly in the wake of Russia's invasion of Ukraine three years ago.

Spain, which has demonstrated its commitment to the ARF from the outset, was instrumental in Steadfast Dart 25, contributing 3,200 out of 10,000 total troops, as well as various ships, fixed- and rotary-wing aircraft, and vehicles. It played an important role in the four Component Commands (land, maritime, air and special operations). Once more, our nation showed itself to be a reliable, responsible and committed Ally. It currently contributes some 4,000 troops to NATO's various missions and has made significant efforts in recent years to increase its military budget. Likewise, as Minister Margarita Robles stressed, "investing in defence is much more than just spending on arms; it is upholding values and a just society".

Steadfast Dart 25 was preceded by a meeting of EU Heads of State and Government and coincided with a meeting of NATO Defence Ministers, both held in Brussels. While the former proposed measures to advance the building of a real common European defence and ensure strategic and industrial autonomy, the latter served to reaffirm NATO's support for Ukraine and the need to strengthen Allied capabilities. All these steps are urgently needed at a time when the relevance of the current strategic situation demands more, better and faster action.

RED



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RAPID DEPLOYMENT IN EASTERN EUROPE

Over 3,200 Spanish soldiers, ships, aircraft and vehicles take part in NATO's largest annual exercise

SEVERAL tactical vehicles with mounted machine guns surround the building and isolate the site, ready to provide security to the assault team. The sound of rotors announces the arrival of two helicopters, a Spanish NH-90 and a Bulgarian AS532. The two countries' special forces fast rope to the roof of the four-storey building, while a second team makes its way in at ground level. They use explosives to open access points and, once inside, clear one room after another until they capture the terrorist leader. Outside, marksmen cover the exit of the assault teams to facilitate an aerial extraction. Mission accomplished!

This was not an action movie but a full-fledged demonstration of the elite capabilities of NATO's Special Operations Forces (SOF). The goal was to quickly infiltrate an enemy-occupied building in a hostile environment to capture a terrorist. It all took place on 13 February 2025 at Tsrancha training centre in Bulgaria in the presence of several NATO command-

ing generals and nations. This was one of the many training activities included in exercise Steadfast Dart 25, the first deployment exercise of the Allied Reaction Force (ARF) and NATO's most visible exercise in 2025.

Held in Bulgaria, Greece and Romania from 10 to 21 February 2025, the exercise brought together some 10,000 troops from the three host nations, and six other nations (Slovenia, Spain, France, Italy, the United Kingdom and Türkiye), which provided land, air, maritime and special operations forces. Altogether, 17 ships (amphibious landing ships, frigates, mine countermeasure vessels, destroy-

ers and submarines), more than 20 aircraft (including Eurofighters, F-16s, AV8B Harriers and A400Ms) and over 1,500 vehicles, including battle tanks, infantry vehicles and rocket launchers, as well as self-propelled artillery and armoured personnel carriers participated in this exercise.

The exercise was planned by the Supreme Headquarters Allied Powers Europe (SHAPE) in Mons, Belgium, and led at the operational level by the Allied Joint Force Command Naples (JFCNP), Italy. It focused on the planning and execution of a joint and multi-domain activity with the aim of supporting the forces of allied nations in south-eastern Europe in a pre-crisis situation to exert a deterrent effect.

This exercise has tested the ability to activate the ARF and coordinate its rapid strategic deployment across multiple countries. This is a complex and large-scale test, in particular for land and special operations units, not only because of the number of soldiers, but also because of the amount of materiel and vehicles

**The first activation
exercise of the
Allied Reaction
Force**

A member of the Spanish special operations teams at the training area in Burgas, Bulgaria.





Robert Gherment/ EFE

Spanish soldiers from task force “Legion” at the Smardan training area, near Galati, Romania, on 19 February, integrated in the ARF’s land component during exercise Steadfast Dart 25.

involved. These had to be transported rapidly to the area of operations in order to have all of the combat capabilities available on the ground as soon as possible.

SPANISH PARTICIPATION

The Spanish Armed Forces were heavily involved in the exercise, with some 3,200 military personnel integrated into the four ARF component commands (land, maritime, air and special operations), all under the operational control of Lieutenant General José Antonio Agüero, commander of the Operations Command.

In addition, for the first time, the Spanish Joint Special Operations Command (MCOE) led the Allied Special Operations Component, which is under Spain’s responsibility for a period of two years, from June 2024 to June 2026.

Some 370 Spanish green berets from the Army, Navy and Air Force participated in this exercise. The deployment began on 25 January with the transfer by land, air and sea of personnel, around 50 combat vehicles —mainly HMTV light vehicles and CNPTT heavy vehicles— and two NH-

90 helicopters, which flew from Spain to Bulgaria. Over the following days, these troops were deployed to different locations in Bulgaria and Greece to practise logistical procedures and collaborate with other special operations units as part of the ARF’s training objectives. Part of these

activities took place in the waters of the Black Sea, where Bulgarian and Spanish teams trained in Maritime Interdiction Operations (MIO).

“Our forces have not only demonstrated their expertise and professionalism, but also their ability to integrate and operate with our Bulgarian allies with efficiency and determination. I am very proud of the performance of the Spanish special operations units in this exercise”, said General Ángel Herrezuelo, commander of the MCOE, after witnessing the exercise on 13



Sgt. Sam Terry/UK Army

Spanish vehicles leaving the port of Alexandroupolis (Greece) by rail during the strategic deployment of the exercise.



February 2025 at the Tsrancha training area in Bulgaria.

The brigade-size land component (led by the UK from 1 July 2024 to 30 June 2025) was deployed to Romania and consisted of two British battalions, a French parachute task force and a Spanish regiment-size task force. It was made up of some 760 troops, mainly from the Spanish Legion's 2nd Brigade "Rey Alfonso XIII" (the 7th Infantry Battalion "Colón", a field artillery battery, a Mistral missile battery and a sappers company), as well as a national support element and a signals unit from the Anti-Aircraft Artillery Command. The contingent mobilised 213 vehicles, including 29 heavy vehicles, 110 HMTVs, 35 Anibals, three L118 light guns and a surveillance radar, as well as a variety of materiel loaded into 34 containers.

The strategic movement began on 16 January by sending these assets by sea to the port of Alexandroupolis, Greece. In early February, they arrived by rail and road in Romania and then travelled to Cincu training area, where they joined the rest of the multinational contingent (the line companies and the tactical command post) to start working and quickly attain full operational capability.

ALLIED REACTION FORCE (ARF)

The ARF is a strategic force, highly available and with multi-domain capability, able to deploy in a very short time and increase its composition through scalable force packages. It plays a pivotal role as part of the new NATO Force Model, which supports the Concept for the Deterrence and Defence of the Euro-Atlantic Area (DDA), agreed at the Vilnius Summit in 2023. Thus, it is capable of carrying out a full spectrum of missions. It can serve as a rapid deployable strategic reserve in crisis situations and it can be deployed to deter or respond to other emerging scenarios. Its flexibility also allows the Supreme Allied Commander Europe (SACEUR) to allocate additional forces to the ARF Commander as required.

The first stage of the training was devoted to technical demonstrations of each contingent's weaponry and combat vehicles. The French presented their Serval 4x4 wheeled armoured vehicle and the Fardier light reconnaissance vehicle. The Spanish legionnaires, in turn, showed their equipment, including the G36 assault rifle, the grenade launcher, the Mistral missile, the 105 mm mortar, the URO HMTV and the tactical drones they use for reconnaissance and attack missions.

The Spanish soldiers of task force "Legion" left Cincu and went to Smardan and Galati to conduct operational activities with

the British and French units deployed there. The activities included intensive trench warfare training at company level, which combined all the elements and weaponry of the different units of the multinational brigade, from infantry and sappers to artillery. They also involved testing logistical support and communications. Due to the sub-zero conditions experienced during those days in the Romanian training areas, the soldiers were able to demonstrate their endurance and capacity for cold environment adaptation.

According to Lt. Col. Ignacio Puertas, commander of the Legion's 7th Infantry Battalion "Colón", "This exercise has been



A special operations team, with Spanish and Bulgarian personnel, trains with a Neton Mk2 light vehicle belonging to the Spanish special operations command (MOE).



A Harrier ready to take off from the flight deck of aircraft carrier Juan Carlos I; CSS Patiño resupplies F-101 Álvaro de Bazán at sea; amphibious landing on Volvos beach using LCMs and fast-rope from one of the SH-60Fs.





both a challenge and an opportunity for our units. In particular, due to the large number of capabilities that have been deployed, demonstrating Spain's determination to fulfil its commitments. Therefore, a thorough preparation has been carried out, similar to that of an international mission, but much more demanding than the usual international exercises".

Once the exercise was over, the ARF units, including the Spanish ones, extended their stay to participate in Dacia 2025, a Romanian national exercise that took place on land and lasted until 28 February.

Steadfast Dart's maritime component, made up of forces from Greece, Italy and Spain, included frigates Blas de Lezo and Victoria, LHD Juan Carlos I as its flagship and around 1,960 Spanish military personnel, most of whom were part of the Dédalo-24 Expeditionary Battle Group.

On board LHD Juan Carlos I was a landing force from the Spanish Marine Brigade, five AV-8B Harrier fighter jets, four helicopters (an SH60B, a H135 and two SH60Fs), four landing craft, and a Role 2B afloat for medical support. The assets of the landing force consisted of 23 heavy vehicles, 47 HMTVs and a Piranha amphibious combat vehicle.

In addition, F-101 Álvaro de Bazán and combat supply ship Patiño, which set off from Rota naval base in January as part of the Dédalo, joined Standing NATO Maritime Group 2 (SNMG2).



An A400M belonging to the 31st Wing from Zaragoza flew from Bezmer, Bulgaria, to Nea Anchialos, Greece, to transport a platoon of the special operations land task group (SOLTG).

Both the "Dédalo" Expeditionary Combat Group and the SNMG2 operated in the Aegean Sea under the ARF's maritime component command, aboard Italian ship Etna. On February 13, a "Media Day" was held near the port city of Volos, in the Pagasetic Gulf, where an amphibious demonstration was carried out with the support of fighter jets and helicopters. The event was attended by ARF commander, Lt. Gen.

Lorenzo D'Addario; deputy commander of the Allied Joint Force Command Naples, Lt. Gen. Peter Scott; and Spanish Rear Admiral Antonio Tanago, commander of the Spanish Fleet's Amphibious and Force Projection Group (GRUPFLOT).

In turn, the Spanish Air and Space Force contributed to the air component of this exercise with a Joint Force Air Component (JFAC), which, among other missions, coordinated and integrated the air activities of the ARF's specific assets with those already present in the area. All this was coordinated through the Combined Air Operations Centre (CAOC) in Torrejón. Spain also provided an A400M transport aircraft, as well as modules from the Air Deployment Support Squadron (EADA), with some 55 service members. Furthermore, the Eurofighters of the "Paznic" detachment, which are deployed on an air policing mission at Mihail Kogalniceanu airbase (Romania), conducted close air support (CAS) missions with UK Joint Terminal Attack Controllers (JTACs).

In order to be better prepared for future challenges, ten different nations joined forces in exercise Steadfast Dart 25 to demonstrate their commitment to collective defence and their readiness to respond to any challenge within the framework of the Atlantic Alliance.



British, French and Spanish soldiers and tactical vehicles in Smardan, Romania, one of the training areas of the ARF's land component in Romania.

Víctor Hernández
Photos: EMAD and JFC Naples

ARMADA 2050

Insight from the CNS



Antonio Piñero Sánchez
Admiral, Chief of Naval Staff (CNS)

“If a man knows not to which port he sails, no wind is favourable”

(Séneca)

THE Armada (Spanish Navy) has greatly influenced the development of both Spanish and world history. Our institution has been around for centuries, and despite the passage of time and the numerous changes in our surroundings, our mission has remained unchanged: the defence of Spain and its interests at sea.

The regional and global environment, the financial resources available to the Ministry of Defence, the national and international industrial fabric, technological advancements, the complexity of international maritime legislation, and the needs and concerns of our personnel are all challenges that call for a great deal of flexibility and adaptability.

Analysing these issues is crucial to determining the best course of action and, ultimately, achieving the Navy we need. To this end, “Armada 2050” offers a forward-looking perspective that allows us to plan the long-term lines of action based on an unalterable principle: Spain needs and will continue to need in the future a decisive and relevant Navy.

The international order has evolved from a scenario with two blatantly opposed blocs during the Cold War, to a unipolar system dominated by the United States, and now to a new multipolar configuration of continuous competition.

Broadly speaking, the current environment is the result of the strategic competition between two models of international order. On the one hand, the Western model based on a system of rules that ensures the freedoms acknowledged by the West; on the other, a model that challenges that system.

This rivalry entails growing instability, armed conflict and the emergence of proxy actors, which triggers an environment of tension and protracted crises where competition is shifted to the “grey zone” and the “multi-domain operational environment”. All this is enhanced by an accelerating technological revolution that is transforming the modus operandi at all levels of command. As reflected in NATO’s new Strategic Concept, signed at the Madrid Summit in 2022, strategic competition, pervasive instability and recurrent shocks define our broader security environment.

Given this viewpoint, “Armada 2050” is based on four fundamental axes: a decisive and relevant naval force; a Navy at the technological forefront; an unwavering commitment to its personnel; and an efficient use of resources.

The Spanish Naval Force needs to evolve to continue being decisive and relevant, as well as capable of defending its national interests while remaining relevant internationally. It needs to be a credible, integrated and versatile force, with great combat power based on the projection capability of its naval power on land.

Therefore, frigates, submarines, ships with amphibious capability, an embarked air naval force and a suitably equipped Marine Corps force are considered essential assets. Against this backdrop, strategic autonomy, deterrence and surveillance are key factors for prompt and effective action in a decision-making process where real-time information availability is critical and where technology plays a pivotal role. Throughout history, technical advancements have changed combat strategies, as is widely recognised. In today’s highly

This document attempts to be the beginning of a strategic alignment that will serve as a driving force for change



Armada

automated and digitalised world, the use of drones, artificial intelligence, digital twins and modular systems will allow for quicker and more accurate analysis and decision-making.

Technologies that will enable combat not only on land, at sea, and in the air, but also in new areas such as cyberspace, which has turned into a battlefield with hazy boundaries.

A new domain of military operations crosscutting all other domains —land, sea and air— where cybersecurity will be critical to safeguarding privacy and critical infrastructures. As a result, the Spanish Navy needs technologies that give it an edge in this domain, which in turn will translate into a decisive advantage in combat.

The new model must also be able to speed up technological research, development and innovation (R&D&I), as well as the ability to experiment and implement updates to the organisation and its units. To achieve this, close cooperation with academia and the industrial fabric will be required.

However, technological developments must go hand in hand with a deep commitment to its personnel, which is an essential goal in order to ensure a cohesive and efficient Navy. In order to enhance teamwork and leadership, the welfare, training and development of its personnel must be based on fundamental values. A Navy of integrity is built on principles such as honour, loyalty, camaraderie, discipline and a spirit of sacrifice.

Integrity builds trust, and trust allows a Navy to work as a unit that is cohesive and capable of accomplishing its tasks with the determination to win as its guiding principle.

This is a solid foundation, which, on the other hand, must be complemented by high-quality training. A field in which simulation and advanced technologies such as digital twins and virtual environments will be extremely valuable tools. Furthermore, the Span-

ish Navy has to transition to a more efficient and agile sustainment model, which can respond to the evolving scenario in a flexible manner. This implies continuous modernisation, developments in resource sustainability and logistic improvements. It is paramount for the Navy to have resilient and automated infrastructures, such as smart shipyards, in order to efficiently support the availability and sustainment of its Fleet. As a result, embracing digital transformation will be crucial to creating a more flexible Navy capable of operating in complex environments.

This view must be supported by three key elements: sufficient and stable financial resources, a consolidated national defence industry, and social and institutional support.

Likewise, funding must be sustainable and efficient, i.e. stable in the long term. However, in order to meet the Navy's needs and be able to supply the most suitable assets, the Defence Technological and Industrial Base must work closely with the private sector and academic research, which are the cornerstones for the development of new capabilities. Furthermore, social support is crucial and this calls for appropriate external communication and an effective defence culture plan.

In short, this long-term projection stems from the importance of having a strategic vision that enables present decisions to be geared towards the future and permits a conscious and effective management. This long-term vision is a critical guide to align activities in the coming years, deal with evolution and emerging technologies, strengthen the industrial base and continue working closely with the maritime community.

Therefore, "Armada 2050" aims to be the beginning of a process of strategic alignment that will serve as a driving force for change in the near future. The Navy needs this boost, which will also serve as a roadmap for building a modern Navy ready to face the challenges of an increasingly complex environment.

ARMED FORCES

PRINCESS LEONOR, on board the Juan Sebastián de Elcano

Princess Leonor climbing one of the ladders of the foremast, an exercise that helps midshipmen become familiar with sail manoeuvring.



Crown Princess sets out on the 97th training cruise of this Spanish tall ship as part of her military training



A white four-masted sailing ship sails in the middle of the Atlantic Ocean. The whistle blows, the sails are raised and trimmed, and the “all hands on deck” order is given. At the bow, Brazil; at the stern, the home of about 250 people on board. A little over a month and a half ago, these people set sail on a voyage that will surely mark a turning point in their professional and personal lives. Because, when they reach Marín on 14 July, the more than 170 crew members of the Navy training ship Juan Sebastián de Elcano and the 76 midshipmen who are on their training cruise will not be the same as those who set sail from the Port of Cádiz on 11 January. They will carry, each one in their own particular backpack, experiences and memories that they will treasure for the rest of their lives.

VOYAGE AROUND AMERICA

On 23 January 2025, after spending two days in the city, the Elcano sets sail from Las Palmas to cross the Atlantic. Previously, from 17 to 20 January, it has been berthed in Santa Cruz de Tenerife. One nautical day follows another. The brigantine-schooner is scheduled to call at Salvador de Bahía on 14 February, the first foreign port to be visited by this tall ship on its 97th training cruise, which sees it sail around South America. It stays in Brazil until 19 February before heading for Montevideo, Uruguay, where it arrives on 5 March. Four days later, the Elcano sets sail on another challenge: to cross the Strait of Magellan and reach Punta Arenas, Chile, by 20 March. Once in the waters of the Pacific Ocean on 23 March, it heads for Valparaíso, where it berths from 4 to 8 April. It reaches El Callao, Peru, ten days later, and stays there until 22 April. Eleven nautical days later, it is set to cross the Panama Canal, reaching the Central American country, and then visiting the Colombian cities of Cartagena de Indias and Santa Marta from 9 to 14 May. Ten nautical days later, the Navy's training ship will be arriving in Santo Domingo (Dominican Republic), while its last port of call in America is to be New York, from 5 to 10 June. After staying in the Big Apple, the Elcano will be commencing its homeward journey, crossing the Atlantic Ocean once again, and arriving at Gijón on 3 July. It will be staying in Asturias until 7 July, calling at Ferrol two days later, and then Marín, where it is set to arrive on 14 July. The midship-

men will disembark there on 17 July, at the Naval Academy, and the Juan Sebastián de Elcano and its crew will head back to its home port of Cádiz to get ready for its next cruise on 21 July.

After completing the entire training cruise to New York, Princess Leonor will be disembarking there and then returning to Spain to continue her seafaring training on board a Spanish Navy frigate. She is set to rejoin her fellow midshipmen in Gijón and remain aboard the Elcano until the ship arrives in Marín, thus following in the footsteps of her father, King Felipe VI, who recalled his own such experience of 38 years ago when he said at a military ceremony: “Dear Leonor, this experience will undoubtedly remain —as it did for me and your grandfather— among your fondest memories of military training”.

JUST ANOTHER MIDSHIPWOMAN

Two days after that speech, the adventure began for both the Crown Princess and the other 75 midshipmen (eight of them women) who set sail on the training cruise. On the evening of 8 January, at the farewell ceremony held in the Port of Cádiz, Princess Leonor joined her fellows on board the training ship. Her Royal Highness boarded the ship before the rest of her class. There, she was welcomed by the ship commander, Captain Luis Carreras-Presas do Campo. During the reception, she was greeted by several officers responsible for the operation of the ship, as well as by the most senior non-commissioned officer and the most senior chief petty officer of the crew. Afterwards, she went to the commander's quarters, where she met with some of the officers in charge of her training, who were to play key roles in the logistics and life on board. Princess Leonor then joined her fellow midshipmen and stood in formation on the deck.

The following day, Princess Leonor, who is just another midshipwoman in her class, began to get acquainted with the ship and started her on-board training with various seafaring training activities, including climbing the four masts of the Juan Sebastián de Elcano. On the eve of the ship's departure, on 20 January, the entire class observed the traditions prior to beginning their naval training. They visited the City Hall of Cádiz, where the midshipmen were received by the mayor of the city, Bruno García. They participated in a ceremony held at the

ARMED FORCES



Rubén Somonte/MDE

The King and Queen watch the crew and midshipmen who are on deck bidding farewell to their families and friends in the Port of Cádiz.



Casa de S. M. el Rey

The Princess of Asturias is welcomed on board the Navy training ship by its commander, Captain Luis Carreras-Presas, and its executive officer, Commander Carlos Carrasco. On the right, with other fellow midshipmen in a maritime training activity.



Casa de S. M. el Rey

cenotaph of the Pantheon of Illustrious Sailors in San Fernando, where they poured the waters collected by the Elcano from every sea it had sailed on its previous training cruise. And they attended mass at the Church of the Virgen del Carmen in San Fernando, to ask the Navy's patron saint to protect, guide and watch over them.

IMAGE OF SPAIN AND ITS NAVY

On the day of departure, there was a lot of excitement, anxiety, and fog at the docks in Cádiz. Midshipmen, crew members, their families, and hundreds of curious onlookers, who did not want to miss the chance to see Her Royal Highness embark on her six-month voyage across the Atlantic and Pacific, filled the city before dawn. The midshipmen participated in the traditional mass held in the Church of Santo Domingo at 9 a.m. The statue of the Virgin of the Rosary, known as La Galeona, was carried from the church to the training ship during a procession that followed the mass, symbolising the Virgin's protection for the journey. When the procession reached the docks at about 10 a.m., almost 1,600 family members and friends of the crew and midshipmen were there to bid them farewell, along with the civilian and military officials who attended the ceremony.

The King and Queen arrived at 11 a.m. Half an hour earlier, the Princess of Asturias had boarded the Juan Sebastián de Elcano along with her fellow midshipmen. Seven cries of "Long live Spain!" and a 21-gun salute welcomed Their Majesties the King and Queen on board the training ship, where they were greeted by its commander. King Felipe and Queen Letizia then went to the ship's port side, where the midshipmen were waiting for them in formation. "On the verge of setting sail for your training cruise, the Queen and I wish you fair winds and following seas, but above all, we hope that you take advantage of this stage of your training as sailors, as service members, and also as representatives of Spain around the world", Felipe VI told them, no doubt recalling that in 1987 he had embarked on the same training cruise. "You represent a Navy with a centuries-old legacy that you must honour and respect, and you also represent a 21st century Navy, the Spanish Navy, which will once again sail the seas and oceans with the Elcano. Always remember that you are torch bearers for the prestige and image of Spain. And also remember that you are midshipmen of the

● Displacement: **3,700 t** ● Length: **113 metres** ● Height: **51 metres**
 ● Breadth: **13 metres** ● Rigging: **4 masts and bowsprit** ● Sails: **20 sails with an area of 3,151 m²** ● Crew: **20 officers, 20 NCOs, 113 sailors and 2 civilian masters** ● Pupils: **76 midshipmen**

97th Training Cruise

Over the course of its more than six-month voyage, this brigantine-schooner will make thirteen stopovers. It will visit cities in eight different countries, crossing the Atlantic Ocean to Salvador de Bahía and bordering the Southern Cone. The Princess of Asturias will fly from New York to Spain and, after a month on a frigate, she will re-embark on the Elcano in Gijón.

Logbook

Navy Captain Luis Carreras-Presas

Commander of the Juan Sebastián de Elcano

“**L**O OSEN the foresail in the name of the Holy Trinity...” With these words from the traditional Pilot’s Prayer we began, for the 97th time in the past 97 years, the Training Cruise of the Juan Sebastián de Elcano, our Ambassador and Navigator.

A total of 243 sailors, including 76 midshipmen from the Spanish Navy’s 427th and the Marines’ 157th classes, embarked on the exciting seafaring adventure that such a voyage entails. Crossing the Atlantic Ocean under sail, going around South America — the Strait of Magellan, the Patagonian canals, crossing the Panama Canal—, sailing the Pacific and the Caribbean Sea and, visiting six Spanish cities and ten cities in eight different countries will prove to be an unforgettable experience for all.

For the newly embarked midshipmen, it is the first adventure of the many to come, a voyage that marks a seafarer’s professional career forever. Living and working alongside shipmates and a professional crew is a determining factor in their training.

So far, just over two weeks after departing Cádiz, we have met our goals, completing adaptation on board, in port and at sea. The days in Cádiz and the port calls in Santa Cruz and Las Palmas allow the crew members and midshipmen to experience the affection and interest of our fellow citizens. They also give us a sense of responsibility and an understanding of the significance of each Training Cruise on board: the past, present and future of the Spanish Navy on the Juan Sebastian de Elcano. Tradition and modernity in the education, life on board and training of our future officers.

On board the Navigator, the first few days at sea are crucial. They allow the midshipmen to learn the ship’s manoeuvring and navigation techniques, adjust to living aboard, and master their first routines at sea.

Their character as sailors will be shaped by the small habits they acquire and repeat over the next few months. They will also vividly remember these days at sea and the lessons learnt on board for the rest of their professional lives, which will be dedicated to serving Spain.

Once we leave Las Palmas, the Atlantic Ocean proves to be an extraordinary school. As every year, we will try to sail to Salvador de Bahia, overcoming the predictable equatorial calms and the squalls in the intertropical convergence zone. Passing the geographical Equator is a significant event at the beginning of any sailor’s career. For the time being, the trade winds are with us, allowing the ship to sail smoothly while displaying almost all its rigging to gain full momentum.

Over the course of the next few days, the midshipmen will learn how reliant we are on the sea and weather conditions while aboard a ship. They will also understand the importance of studying and gaining knowledge in order to be able to lead individuals who, with their commitment and hard work, perform a demanding job that allows them to handle any situation at sea around the clock.

The first lessons, manoeuvres, tacking and anecdotes of life on board mark the beginning of their learning stage on the Juan Sebastián de Elcano. The ship will then cross the Atlantic Ocean, as it has done for nearly a hundred years, eager to return to the cities it has visited so many times. There, the ship will carry out its second mission, that of Ambassador, representing Spain and its Navy in each of its port calls.

The sailors on board today are proud to continue a nearly century-old mission, representing Spain and its Navy, and to be able to give a voice at sea to the thousands of sailors —almost 30,000—, who have gone before us as crew members or midshipmen and have written our training ship’s glorious history.

Spanish Navy. Both the Queen and I hope that you enjoy this voyage and that you fly the flag high on the seas and at the ports where you arrive”, the King added. Afterwards, the King and Queen went to the commander’s quarters, where the Princess of Asturias also joined them. They shared a few minutes with the attending authorities: the President of the Regional Government of Andalusia, Juan Manuel Moreno Bonilla; the Minister of Defence, Margarita Robles; the Delegate of the Regional Government of Andalusia, Pedro Fernández Peñalver; the Mayor of Cádiz, Bruno García de León; the Chief of Defence Staff, Teodoro López Calderón and the Chief of Naval Staff, Antonio Piñeiro Sánchez.

AN EMOTIONAL FAREWELL

Meanwhile, the loudspeakers on the dock issued the order that everyone there wanted to hear: “All hands dismissed. Crew authorised for farewell. 11.30 a.m. on board”. One by one, the crew and midshipmen started to go down the gangway to bid their loved ones farewell. Hugs that seemed to linger forever, words of advice, kisses, tears shed for the over six-month separation to come, and photos to immortalise this moment, their last one together until July. Wives, boyfriends and girlfriends, children, uncles, aunts, grandparents, nephews and nieces, friends, mothers and fathers wished them a pleasant journey, because a small part of their hearts would also sail on the Navy’s training ship.

Then, they all heard: “All hands on deck for set sail”. And thus the 250 souls of the Juan Sebastián de Elcano joined the ship to fulfil their mission. It was 11.30 a.m. when King Felipe and Queen Letizia went down the gangway. The whistles resounded. “Elcano, Their Majesties the King and Queen ashore”. And the departure manoeuvre began. While the guiding prayer of the Elcano sounded over the loudspeaker, the King and Queen stood in front of the ship visibly moved. Like the rest of the parents there, they smiled but with tears in their eyes, they blew kisses, took pictures and waved. Two parents who, as Felipe VI pointed out, were bidding their daughter farewell “with sadness, but also with excitement, because this is going to be very good for her”. As the ship moved away from the dock of Cádiz, the crew and midshipmen waved goodbye with their caps. Meanwhile, the Choir of the University of



ARMED FORCES

Dozens of boats join the training ship as it departs the Bay of Cadiz.



Casa de S. M. el Rey

The Princess and other midshipmen waving upon their arrival at the port of Santa Cruz de Tenerife, the first stopover of their training cruise.



Ramón de la Rocha/EFE

Cadiz and the music band of the “Tercio del Sur” (Spanish Marine Brigade South) sang the “Salve Marinera” (the official anthem of the Spanish Navy).

“This is a very exciting day for everyone. It is a source of pride to see how Cádiz turns out, the city’s connection with the Navy and the excitement with which our midshipmen are setting out on this journey. We hope they enjoy the experience, learn from it and carry it with them forever”, said the Minister of Defence before boarding offshore patrol vessel Vigia with the King and Queen to accompany the Juan Sebastián de Elcano on its departure, as did hundreds of private boats gathered there, creating a spectacular view of the Bay of Cádiz.

This is an image that will always be remembered by the 76 midshipmen of the 427th class of the Navy’s General Corps and the 157th class of the Marines, who were also accompanied by an officer from the UK’s Royal Navy, a midshipman from the Chilean Navy, another from Brazil and one from Colombia, in addition to the more than 170 crew members of the brigantine-schooner, including officers, NCOs, troops and sailors, civilian masters and teachers from the Naval Academy.

AMBASSADOR AND NAVIGATOR

Its spirit of service and its sense of duty to accomplish its two missions is what earns the Juan Sebastian de Elcano the nickname of Ambassador and Navigator. On the one hand, its mission is to contribute to the training of midshipmen —the future officers of the Spanish Navy—, who set off on their training cruise during the second semester of their third year of naval studies. More than 150 nautical days during which they are in close and constant contact with the sea, where they are called upon to carry out their main professional duties. This, in addition to the eminently practical training received on board, provides a thorough education that helps them integrate the Navy’s values, customs, and virtues, while

also strengthening and improving their technical and nautical skills. On the other hand, the Elcano’s mission is to support Spain’s foreign policy, bearing the national flag to all the countries it visits, and receiving on board different national and foreign authorities and personalities, as well as any citizens who wish to visit that little piece of Spain that sails.

And there, in the middle of the ocean, en route to Brazil, the days go by between duties, watches, classes and conversations among classmates. At the bow, six months of an intense and unforgettable voyage lie ahead, which will culminate in their return home, and, obviously, in a mission accomplished.

Verónica Sánchez Moreno

ADMIRAL JOSÉ MARÍA NÚÑEZ TORRENTE, MILITARY REPRESENTATIVE TO NATO AND EU MILITARY COMMITTEES

“RUSSIA’S AGGRESSION HAS CHANGED THE EUROPEAN SECURITY PARADIGM”

MILREP notes that Spain is “actively involved” in the various NATO and EU initiatives aimed at promoting stability and contributing to deterrence and defence

SINCE last September, José María Núñez Torrente has been the Spanish representative to NATO and European Union military committees. These are organisations which according to him “have evolved enormously in recent years in response to events such as the war in Ukraine, the rise of China, instability in Africa and the reignition of the conflict in the Middle East, all of which have changed our strategic situation”. Admiral Núñez has extensive experience in the aforementioned organisations (he previously commanded the Spanish High Readiness Maritime Forces Headquarters provided to NATO, and from which he also helmed EUNAVFOR operation Atalanta), and explains that “since nations are unable to handle these complex challenges on their own, strategic-military decision-making on security and defence —even though it is always left to national discretion— has gained greater significance in Brussels, both at NATO and EU headquarters”. The MILREP stresses the importance of the work of his team (made up of his deputy commander, the advisers of the three service branches and personnel in support tasks), thanks to whom the Military Representation can make “huge efforts in terms of situational awareness and coordination, while seeking the unity of the numerous military ac-

tors involved in the various debates that are dealt with in both forums”.

—What has changed in our perception of security after Russia’s invasion of Ukraine?

—It has obviously resulted in a radical change in the European security and defence paradigm. With this unilateral and illegitimate action, Russia has violated the principles of international law and status quo in Europe. At the same time, the fragility of borders in the face of an aggression by one state against another has been demonstrated. Therefore NATO, as the guarantor of the security and defence of its members, has seen its importance and its role as a pillar of deterrence on Europe’s eastern border strengthened.

Consequently, and as a result of the

“Europe has assumed the need to invest more in defence and increase its strategic autonomy”

Madrid Strategic Concept, NATO has reinforced its Defence Plans and Structures to credibly deter Russia from continuing its expansionist drive and, if necessary, defend every inch of allied territory. Within the EU, this has also meant bringing security and defence issues to the forefront, including a significant surge in investment and the implementation of a number of mechanisms to increase capacity and achieve greater strategic autonomy in the defence industrial sector. All this was clearly demonstrated with the release of the Strategic Compass and has recently been ratified, for instance, by the appointment of the EU’s first-ever Commissioner for Defence and Space.

—What role has the EU Military Assistance Mission in support of Ukraine (EUMAM Ukraine) played in this process?

—EUMAM Ukraine was set up in 2022, with the aim of training and instructing the Ukrainian Armed Forces in combat tactics and techniques, and improving their ability to defend themselves against Russia’s invasion. Since the beginning, Spain has been one of the primary contributors, managing the implementation of various training modules provided by its Army, Navy, and Civil Guard through the Toledo Training Coordination Centre. In total, we



have already trained nearly 7,000 Ukrainian soldiers all over Spain, which proves our country's commitment to European security and its solidarity with Ukraine in this conflict. Furthermore, Spain is helping Ukraine by providing materiel, weapons and equipment and through other actions, such as the treatment of the wounded.

—At the last Washington Summit, NATO decided to take over the coordination of military training and equipment provided by partners and allies to Ukraine. How is this coordination being carried out?

—Since the invasion of Ukraine three years ago, 99% of the assistance to the Ukrainian armed forces, whether bilaterally, through NATO or through other multilateral initiatives, has come from allied countries. Prior to the Washington decision, plans were already in place for the establishment of the NATO Security Assistance and Training for Ukraine (NSATU) mission in order to coordinate the provision of military equipment and training. A plan was drawn up for this transition phase towards NSATU, along with other initiatives that had so far been carrying out this task, in order to avoid the interruption of support and duplicities. All these efforts are aimed at making the Ukrainian Defence Forces and their partner institutions interoperable with NATO and thus more capable of defending Ukraine today and deterring Russian aggression in the future.

—In which initiatives of the Strategic Compass is Spain most involved?

—We are involved in most of the initiatives of the Strategic Compass in each of its four pillars. Regarding the “Act” pillar, Spain, in addition to being one of the largest contributors of forces to current EU missions and operations, helps establish the EU Rapid Deployment Force (RDC) and offers one of the EU Battle Groups for future rotations. As for the “Secure” pillar, Spain has increased its cooperation in the EU Cyber Defence Coordination Centre and supports the strengthening of critical infrastructures, which is key to the security of military communications and networks.

With respect to the “Invest” pillar, Spain is one of the most active countries in European defence initiatives, and stands out in the Permanent Structured Cooperation (PESCO) where it leads five projects

“The better prepared we are to counter an attack, the more credible and visible our deterrence capability will be”

and participates in more than 30. As far as the European Defence Fund (EDF) is concerned, Spain also leads a number of projects and participates in about 80. Finally, as for the “Partner” pillar, our country supports the strengthening of military cooperation between the EU and NATO, as the main strategic partner, contributing to interoperability and coordination in combined operations, and with many other partners. It also promotes cooperation initiatives with Ibero-America.

—What will the EU’s Rapid Deployment Capacity initiative involve and how will we contribute?

—This initiative seeks to strengthen the EU’s capacity to respond efficiently and swiftly to crises and emergencies, both within and beyond Europe’s borders, and involves the rapid deployment capacity of a force of up to 5,000 troops in crises. The RDC is designed to perform a wide variety of missions, ranging from rescue and evacuation operations or military support to humanitarian assistance, to the more demanding peace enforcement missions.

Given its size and capacities, the RDC is not intended to be a tool to act in crises that might involve activating collective defence mechanisms. The EU itself has made it very clear that Europe’s collective deterrence and defence rests on the Atlantic Alliance. In any case, this project will help the EU to be less dependent on other organisations and guarantee a certain strategic autonomy, while strengthening its role as a global security actor.

Spain, as a relevant EU partner, contributes to make up this force, providing additional units and capacities within its cyclical generation process. Specifically, Spain will be the framework nation providing a significant part of this RDC during the second half of 2026 and first half of 2027.

—As for NATO, what are NATO’s new Defence Plans?

—These Plans are not new to NATO. Since their inception, they have been

modified and adapted as the international situation has evolved. Not surprisingly, they have undergone a significant overhaul as a result of the profound and significant geopolitical changes that have taken place in recent years, and a new set of Defence Plans has been drawn up to reinforce NATO’s core task, i.e. to deter and guarantee the defence of its Allies. It is important to note that these two intended effects —deterrence and defence— are both interrelated and complementary, since the better prepared we are to counter an attack, the more credible and visible our capability to deter potential adversaries will be.

When analysing the content of these plans in more detail, I would highlight as a novel aspect that they have been synchronised with the national defence plans themselves, thus preventing duplicities and generating synergies.

Moreover, the new Plans cover all domains and include Space, Cyber Defence and Special Operations. Also particularly important are all issues related to the logistical support needed to sustain these plans and the need to involve all administrations and society in the process, since they play a key role in the success of the plans. All this results in greater efficiency in managing all available resources.

—How are these plans carried out?

—They are only the starting point. Their real value lies in their ability to be implemented, which requires the forces offered by nations; an appropriate Command and Control structure to use them; and the suitable availability and training to do so. And it is precisely in these three aspects where the positive impact that these plans have had on the Alliance are most noticeable.

As a result of our national commitment, there are Spanish forces deployed in Slovakia, Latvia and Romania, air defence and air policing capabilities deployed on the Eastern flank, as well as various naval units and maritime groups, all of which reinforce NATO’s deterrence and defence



posture. Spanish forces also participate in the various exercises and operations scheduled to increase training and improve interoperability.

—A year ago, the European Union approved its Maritime Security Strategy. For the Spanish Armed Forces, what does this EU focus on the maritime sector mean?

—Maritime security is vital for the EU and its Member States, which together own the world’s largest exclusive economic zone. Maritime Strategy seeks to strengthen the EU’s role in the maritime domain in order to ensure security in the oceans, reinforce international law, promote international governance and enhance the synergy between civilian and military initiatives. Its Action Plan describes specific actions, such as annual naval exercises, strengthening cooperation with



NATO, enhancing maritime surveillance and cybersecurity capabilities, and so on. Another indication of the EU's focus on this area is the recent creation of a maritime security branch within the European External Action Service.

In this context, we can proudly say that Spain organised in May 2024 the EU's first live maritime security exercise (using live forces as opposed to simulation), Marsec EU 24, which is clear proof of our country's commitment and leadership in this important field.

Spain also contributes militarily to EU maritime security through its participation in the European Union Naval Force Operation Atalanta —with its headquarters in Rota, Spain—, and in the two maritime areas of interest, the Gulf of Guinea and the Northwest Indian Ocean, within the Coordinated Maritime Presences Concept.

—Can the Alliance become more involved in the stability of the Southern region?

—NATO has a 360° degree approach to security and defence and has always seen the South as an area of interest for the security of its Allies. Proof of this is the Mediterranean Dialogue and the Istanbul Cooperation Initiative. The Washington

“NATO and the EU stand united in their support for Ukraine and have increased and strengthened their cooperation”

Summit has bolstered NATO's cooperation in this region with the drafting of the action plan for the Southern Neighbourhood and the appointment of the Spaniard Javier Colomina as NATO Secretary General's Special Representative for the Southern Neighbourhood, who is in charge of overseeing its implementation, while also seeking to give the NATO Strategic Direction South Hub, located in Naples, greater relevance. The goal of this renewed interest in the South is to achieve a more stable and secure environment, which is crucial for Spain.

Not only is this necessary to counter terrorism as a threat and the ensuing violence it causes, including the organised crime that proliferates with all kinds of illicit trafficking, but also because the South, and in particular Africa, has turned into an arena of geostrategic competition due to the growing influence and presence of Russia and, above all, China.

—EU-NATO cooperation and complementarity are growing. How is this managed from a military point of view?

—In recent years, EU-NATO cooperation has expanded significantly and become more intricate, although always within the framework of the three joint EU-NATO declarations on this issue (2023, 2018 and 2016), the EU Strategic Compass and NATO's Strategic Concept.

This synchronisation makes sense considering that 23 of the 27 EU countries are members of both organisations.

One could argue that cooperation management has not changed over time, with regular consultations between the organisations at various levels and reciprocal participation in committees and working groups to present their initiatives and search for synergies.

However, the scopes have indeed evolved, even those set out in the third and most recent Declaration, which outlines today's challenges and how cooperation will address them. In this latest Declaration, both the European Union and the Atlantic Alliance set a clear course of action for such cooperation, stating that they stand united in their condemnation of Russia's war of aggression against Ukraine and support Ukraine's sovereignty, territorial integrity and right to self-defence. It also sets out the shared vision of how

INTERVIEW



Admiral Nuñez Torrente at a coordination meeting with part of his team at the headquarters of the Spanish Military Representation to NATO and the EU in Brussels.

the EU and NATO will act together against common security threats. Furthermore, it defines the tools that will be used to materialise that cooperation.

—What tools are those?

—They are the so-called structured dialogues, which cover different areas: growing geostrategic competition; resilience and the protection of critical infrastructure; emerging and disruptive technologies; space; the security implications of climate change; foreign information manipulation and interference; and military mobility.

From a military standpoint, the cooperation between the two organisations is mainly materialised between their respective military staffs (IMS and EUMS) and the reciprocal updates between the two Military Committees. This is achieved through real-time information-sharing or joint meetings on ongoing operations, such as Althea in Bosnia and Herzegovina, and more recently, on the support of both organisations to Ukraine in its war against Russia, through cooperation between EU-MAM Ukraine and the newly created NSA-TU. As for capacity-building, the objective is to attain maximum complementarity so

that the mechanisms available to the EU can be used to build the capacities required by Member States, which can also be used in the NATO framework.

—In your opinion, what role does Spain play in the EU in the purely military field?

—Spain is an important member of the EU and a reliable partner committed to the values it represents. We are one of the nations with the greatest weight and, since the onset of the Common Security and Defence

“Spain is an important member of the EU and a reliable partner committed to the values it represents”

Policy, we have participated significantly in almost all EU military missions and operations, and for a long time we have been the largest contributor of forces. Furthermore, we should not forget that our service members, due to the traditional qualities of Spanish soldiers, who have consistently stood out for their extraordinary professionalism, sense of duty, empathy and closeness, have been and continue to be a guarantee to ensure the success of our participation. Today, we keep an active presence in missions such as EUFOR Althea, Operation Atalanta, EUMAM in Ukraine and Mozambique, EUTM in the Central African Republic and Somalia, and the EU Security and Defence Initiative in the Gulf of Guinea through mobile cooperative security systems.

—What about the Atlantic Alliance?

—Within NATO, in addition to the expertise and professionalism of the Spanish service members stationed at NATO headquarters and other allied organisations, Spain provides military capabilities in a number of deterrence and defence operations, and stability projection missions.

Whether permanently or temporarily, we contribute to operation Persistent Effort, which brings together several Integrated Air Defence missions (Baltic Air Policing in Estonia, Latvia and Lithuania, Enhanced Air Policing in Romania, and Air Defence Units in Latvia and Turkey), Standing Maritime Groups in the Mediterranean and the Atlantic; the ground deployment on the eastern flank (Forward Land Forces), with forces in Latvia, Slovakia and recently in Romania; NATO Mission Iraq; and Operation Sea Guardian in the Mediterranean. In addition, on Spanish soil, we host the Combined Air Operations Centre (CAOC) in Torrejón, which is in charge of the surveillance and air command and control of half of the European airspace under NATO responsibility.

We also have high-readiness land and maritime headquarters, and air and special operations headquarters, which periodically serve as NATO Response Force Component Commands.

Therefore, we may conclude that Spain's level of military participation in the Atlantic Alliance is quite significant in terms of both quantity and quality, and that it is highly appreciated by our allies.

Rosa Ruiz
Photos: Pepe Díaz

Military assistance to Ukraine

King visits combat training unit in Toledo



Casa de S.M. el Rey

ON 5 March 2025, King Felipe VI visited Combat Training Unit 'Ceuta' at the Infantry School in Toledo. This unit is currently in charge of training Ukrainian military soldiers in a number of courses being held in Toledo.

The Chief of Defence Staff, Admiral General Teodoro López Calderón accompanied the King during the visit, which allowed them to witness some of the instruction and training activities ca-

ried out at the Infantry School's training area and shooting range.

Following these exercises, Felipe VI met with the Spanish and Portuguese instructors who are teaching these courses, as well as with the Ukrainian personnel who are taking them.

During the meeting, the Ukrainian military members presented the King with an embroidered shirt, a typical gift that Ukrainian mothers give their sons when they go to the frontline.

Operation Atalanta

F-84 Reina Sofia takes over from F-81 Santa Maria

Operation Atalanta's frigates and Force Commander handover ceremonies were held in the port of Djibouti on 21 February 2025. Frigate Reina Sofia took over from the Santa Maria, and Italian Rear Admiral Davide Da Pozzo assumed command of the 49th rotation. The ceremonies were presided over respectively by Captain Gonzalo Leira Neira, representing the Commander of

the Spanish Operations Command; and by Vice Admiral Ignacio Villanueva Serrano, Commander of Operation Atalanta, at the Operational Headquarters in Rota.

Personnel from the Air and Space Force's Tactical Air Detachment (DAT) 'Orion', integrated in the European mission against piracy in the Indian Ocean, were also on board the Santa Maria.

Since then, the primary task of F-84 Reina Sofia has been to combat piracy and ensure maritime security in the waters of the Indian Ocean.

An air unit, consisting of a SH-60B helicopter from the 10th Aircraft Squadron, a Scan Eagle unmanned aircraft from the 11th Aircraft Squadron, as well as a Special Operations Team from the Special Naval Warfare Force (SNWF) and a ROLE-2 medical team are

embarked on board the ship. The 48th rotation, commanded by frigate Santa Maria, has been involved in several piracy events: two armed robberies at sea, one involving a Chinese-flagged fishing vessel and another one involving a Yemeni-flagged one, both of which have already been resolved; and a third involving another Yemeni ship.



Eunavfor Atalanta

OVERVIEW

Romania's Multinational Battle Group

Spanish marines conclude exercise Eagle Thunder

THE Marine's Mechanized company-size unit, part of NATO's Multinational Battle Group Romania (MN BG ROU), took part in exercise Eagle Thunder, which involved a series of training activities focused on marksmanship and weapons handling.

Specifically, it involved the implementation of the Spanish detachment's firing capabilities, with activities conducted during both daytime and nighttime operations. The exercises included the use of Piranha Infantry Fighting Vehicles (IFVs), medium and light machine guns, grenade launchers, precision shooting, and rifle marksmanship in close-quarters environments.



Through initiatives such as Eagle Thunder, the detachment demonstrates its readiness and determination to contribute to Allied security and stability in the region, reaffirming Spain's commitment to deterrence and defence on NATO's eastern flank.

Romania's Multinational Battle Group is one of the eight deployed along the eastern flank by NATO to contribute to the deterrence and defence in this region. The activities to be conducted are similar to those already carried out by the Spanish Armed Forces

in Latvia and Slovakia. These include exercises within the unit itself and others as required, integrated into the French-led Multinational Battle Group, as well as those exercises conducted in cooperation with the Romanian Armed Forces.

EMAD

Eurocorps exercise

Spanish soldiers take part in a multinational training

DURING the second week of March, twenty Spanish soldiers took part in the multinational training exercise organised by the Eurocorps headquarters in the German Black Forest, near the town of Stetten am kalten Markt.

The primary objective of these training days, which involved a total of 159 service members—both command staff and enlisted ranks—is the integration and cohesion of Eurocorps personnel into fully multinational task forces. These task forces consist of ten members, are commanded by an officer, and are led by instructors and monitors from five of the framework nations (Germany, Belgium, Spain, France and Poland).

The main activities during these days included firing exercises with the weapons assigned to the headquarters (French FAMAS rifle, German HK G36 rifle and Belgian FN 5.7 pistol), orientation marches in groups, obstacle courses for small groups of 12 participants, as well as theoretical and practical sessions on communications with French VHF/UHF equipment, C-IED measures and combat first aid.



EMAD

Training Iraqi units

Spanish special forces celebrate a decade of training in the fight against Daesh

The Special Operations Task Group (SOTG) of the Spanish Armed Forces in Iraq celebrates a decade of ongoing presence as part of the International Coalition against Daesh, within the framework of operation Inherent Resolve (OIR).

During this time, the SOTG has established itself as a key element of the international response in support of the Iraqi Government. Its main achievements have been its flexibility and adaptability, which have enabled it to respond precisely to needs at the right time and in the right place, with the constant aim of improving security in Iraq and the region as a whole.

In its early years, and through a continuous adaptation process to the operational environment, the mission focused on training local forces in special operations tactics, techniques and procedures, as well as advising on their execution.

The training has ranged from basic courses to the acquisition of more advanced capabilities, such as the use of explosives, urban combat, precision marksmanship, tactical combat casualty care, and intelligence operations management.

As the OIR has evolved, Spanish support has shifted from a reactive to a more preventive and long-term approach aimed at ensuring that Iraqi security forces can take control of the country's security.



South Lebanon

Spanish peacekeepers remove major road obstacles near Kham

WORKING in collaboration with the Lebanese Armed Forces (LAF), UNIFIL Spanish peacekeepers cleared three major obstacles on the road near Kham, south-eastern Lebanon.

The 12 January activity was the fourth undertaken by the Spanish peacekeepers since the cessation of hostilities understanding of 27 November 2024, enhancing mobility of local people as well as UNIFIL peacekeepers.

This operation saw the mobilization of specialized units, including protection vehicles, a terrain reconnaissance team and a machinery team equipped with a back-

hoe. In the end, vital communication routes within the Spanish peacekeepers' area of responsibility were reopened.

Since the 27 November understanding, UNIFIL peacekeepers have ramped up support initiatives to the LAF as well as tens of thousands of residents and returnees across south Lebanon.

United Nations Interim Force in Lebanon (UNIFIL) have assisted the Lebanese Armed Forces to deploy in the areas withdrawn from by the Israel Defense Forces, including in Kham last month. They also recently supported returnees to Kham with essential winter supplies.



Marco Romero/IDE

Defence Minister talks with Lt. Col. Víctor Manuel Garrido, commander of the 'Paznic' detachment, and Major José Manuel Molina, commander of the 'Tigrú' detachment.

VISITING THE DETACHMENTS IN ROMANIA AND TÜRKIYE

Margarita Robles thanks Spanish soldiers for their participation in the air defence of NATO's eastern flank

IN February 2025, Defence Minister Margarita Robles visited three of the contingents taking part in NATO's operation Persistent Effort to monitor and protect NATO's airspace on the eastern flank. On 12 February 2025, she travelled to Mihail Kogalniceanu air base in Romania, where she met with her Romanian counterpart, Angel Tilvar, and members of the 'Paznic' and 'Tigrú' detachments.

One week later, on 19 February, she travelled to Incirlik air base in Türkiye, where she met with members of the 'Patriot' anti-aircraft battery.

In Romania, Robles expressed her satisfaction with our Armed Forces' contribution "to NATO and to the security of the countries under threat", and praised the "professionalism and dedication" of the members of these detachments, thanks

to whom Spain's commitment is "a reality and a source of pride".

The two defence ministers stressed the excellent collaboration between their respective armed forces, both bilaterally and within NATO, as part of the Strategic Partnership between Romania and the Kingdom of Spain. They also agreed on the main challenges affecting European security, both as a result of Russia's war

against Ukraine and the threats coming from the south.

Angel Tilvar explained that in his country, which borders Ukraine, the conflict is felt "at close quarters". This is why the support of Spanish military members is so important for the Romanians. "We want them to remain here", said Tilvar, who presented Robles with the badge of honour of the Romanian Armed Forces in gratitude for her contribution to the strengthening of bilateral Romanian-Spanish defence relations.

After the meeting, Margarita Robles toured the installations where the 175 men and women of the 'Paznic' detachment, commanded by Lt. Col. Víctor Manuel Garrido, carry out their work. On 6 February 2025, this detachment incorporated an A400 aircraft from the 31st Wing, equipped with in-flight refuelling capability. This has increased the radius of action and flight time of the six Eurofighters of the 14th Wing, as well as the number of military personnel deployed. Another milestone was the assembly by the Second Air Deployment Support Squadron (SEADA) of two deployable aircraft shelters, which has improved operability in adverse conditions.

The mission of the current 'Paznic' contingent began at the end of November 2024 with the arrival of the first troops from the 14th Wing. They relieved the 12th and



Marco Romero/MIDE

Eurofighters are capable of taking off within a maximum of 15 minutes in response to an airspace violation or an aircraft flight trajectory deviation.

15th Wings, which had been conducting the air policing mission since August. Initially, the detachment had six Eurofighters from the 14th Wing and some 140 military personnel from up to 17 different Air Force and Space units, including support controllers stationed at the air and tactical control centres in Bucharest.

Since the operation began, almost 400 flight hours have been flown in some 200

missions, including day and nighttime air-to-air and air-to-ground missions, some of which involved in-flight refuelling. During its deployment, the 'Paznic' detachment has collaborated with up to eight nations.

Spanish fighter jets frequently fly joint sorties with Romanian fighters. In fact, the day after the Defence Minister's visit on 13 February 2025, two Eurofighters of the 'Paznic' detachment and other aircraft of the host nation were scrambled following the detection of a nighttime intrusion into Romanian airspace, after radars had identified a possible drone on the Ukrainian border.

The 40-member 'Tigrú' detachment, commanded by Major José Manuel Molina, is located 60 kilometres south of Mihail Kogalniceanu air base. The detachment is in charge of the AN/TPS/43M air surveillance radar of the Mobile Air Control Group (GRUMOCA), which exceeded 18,000 operating hours monitoring NATO airspace on Europe's eastern flank. It has a very high operational capability and range, allowing it to monitor from Moldova to the Turkish coast.

Also on Romanian soil, specifically at Cincu military base, there is a company-size task group of the Spanish Marine Brigade, with more than 200 troops and some 40 vehicles. This contingent is integrated in a French-led multinational battle group, one of the eight deployed along



EMAD

The GRUMOCA's AN/TPS/43M radar, sent to Romania in October 2022 and operated by the 'Tigrú' detachment, reached 18,000 hours of air surveillance in February 2025.

INTERNATIONAL MISSIONS

A total of 21 contingents, with some 3,000 troops, have participated in the mission to support Türkiye in the past ten years

the eastern flank to help deter the Russian threat in this allied territory.

ANTI-MISSILE SYSTEM

At Incirlik air base, Robles highlighted the “dedication” of the 138 military personnel participating in NATO operation Support to Türkiye. Spain has a ‘Patriot’ anti-missile battery deployed there to protect the civilian population of Adana, a city with two million people located 120 kilometres away from the Syrian border. The members of the 21st contingent, from the Army’s Anti-Aircraft Artillery Command, have been stationed there under the command of Lt. Col. Fernando García-Reparaz since 20 December 2024.

The Spanish Defence Minister considered this mission to be “fundamental” for both NATO and the Turkish Army, since “it is not only about air defence, but also about sharing experiences and carrying out exercises that allow for constant learning and training”. The operation in Türkiye “acquires a very special importance from the bilateral point of view”, she added.

While visiting the Spanish contingent’s living area, Robles held an emotional reunion with the Yılmaz family, who were res-



The ‘Patriot’ anti-missile battery protects the population of the city of Adana against potential threats from Iran and Syria 24-7.

cued by the Military Emergency Unit (UME) after the earthquake that struck south-eastern Türkiye in February 2023, in a difficult operation that lasted around 30 hours. Support to the population was provided by personnel of operation Support to Türkiye

and the ‘Dédalo 23’ Expeditionary Strike Group, which was sent to the Turkish coast to assist the victims of the disaster.

On 30 January 2025, twenty days before the Defence Minister’s visit, a military ceremony, presided over by Spanish ambassador to Türkiye, Cristina Latorre, commemorated the mission’s tenth anniversary. During the event, she was accompanied by representatives of allied nations, such as the United States, which deploys its 39th Wing at Incirlik air base, Poland and Türkiye, and NATO’s Deployable CIS detachment.

The ‘Patriot’ battery has been permanently stationed at Incirlik since January 2015, when the Spanish troops joined NATO’s mission in Türkiye. Spain worked closely with Türkiye to choose this site, in close coordination with the Supreme Allied Commander Europe (SACEUR), which holds the operational command of the mission and delegates operational control to the Allied Air Command, located at Ramstein air base (Germany). This is the first operation in which Spain has deployed a ballistic missile defence system abroad, and over the past ten years, 21 contingents and nearly 3,000 troops have taken part in this mission.

Santiago F. del Vado



Reunion of UME members with the Yılmaz family, whom they rescued after the devastating earthquake in Türkiye in 2023.



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ANNIVERSARY

30 years of the 'Ícaro' detachment

Spanish Air Force took part for eight years in NATO's air task force during the Balkans conflict





STATIONED at Aviano air base (Italy) for the first time thirty years ago, the 'Ícaro' detachment was tasked with providing close air support for UN peacekeeping forces in Bosnia and Herzegovina. It was the first time that combat aircraft were deployed outside national territory to take part in real operations, thus writing one of the most remarkable chapters in the Spanish Air Force's recent history.

EF-18s reached 28,000 flight hours in the 7,500 missions flown in support of operations in the former Yugoslavia. Below, one of the crews in a pre-flight briefing. The missions of the Spanish fighter jets required thorough planning.

The Aviano air base deployment was not the first one in international operations. However, due to its importance, length and the multidisciplinary composition of the force, it served to boost much of the doctrine, tactics, techniques and procedures that have made the Air and Space Force of today one with a strong expeditionary character.



It all began in June 1994 when Spain, in response to United Nations Security Council Resolutions 816, 836 and 958, decided to participate, along with the other NATO nations, in the Allied effort to provide air support to the peacekeeping operations that were being conducted in the former Yugoslavia. The result of this decision was to set up the 'Ícaro' detachment at Aviano air base, an Italian city near the Slovenian border.

Eight EF-18 (Spanish F-18) fighter-bombers from the 15th Wing, two KC-130 Hercules from the 31st Wing

ANNIVERSARY

The Aviano deployment served to boost much of the subsequent doctrine, tactics, techniques and procedures



Spanish Air Force personnel load a Sidewinder missile on an EF-18. The fighter jets were armed with these missiles for self-protection.

and about 240 people were sent to the new detachment, which became fully operational on 1 December 1994, when it joined operation Deny Flight. From then on, the EF-18s would take off daily at the foot of the Dolomites for Bosnia and Herzegovina and Kosovo. The Spanish fighter-bombers flew 7,500 missions, reaching 28,000 flight hours.

KC-130 Hercules were in charge of their air-to-air refuelling, which supplied fuel to the fighter jets over the Adriatic Sea in order to double their flight time. In total, the Dumbos from the 31st Wing transferred eight million litres of fuel, not only to the Spanish aircraft but also to the Canadian, American, British and German aircraft stationed at Aviano.

In order to guarantee its security and from its inception, members of the newly established Air Deployment Support Squadron (EADA) joined the 'Ícaro' detachment. It also had a Communications Centre managed by the Mobile Air Control Group (GRUMOCA). An Intelligence Branch was also stationed at Aviano air base and the first operation, Deny Flight, involved C-212 and CN-235 aircraft on transport and support missions.

Additionally, the contingent took control over the remaining assets that had for nearly a year been involved in NATO operation Deny Flight to enforce the international community's embargo on the former Yugoslavia and its airspace, and to provide direct air support to UNPRO-

FOR (UN Protection Force). These assets included a C-212 Aviocar belonging to the 37th Wing (Valladolid), which since June 1993 had been carrying out logistical support missions for NATO's Fifth Task Force in Vicenza; and three TACPs (Tactical Air Control Parties) whose mission was to lead the fighter jets to their surface targets. Subsequently, Spain reinforced its contribution to the Allied contingent with a Boeing 707 from the Air Intelligence Centre stationed at Torrejón air base.

NATO OPERATIONS

'Ícaro' joined operation Deny Flight with three main missions: CAP (Combat Air Patrol) to ensure compliance with the flight restrictions imposed by the United Nations; CAS (Close Air Support) for the blue helmets and humanitarian assistance missions; and Airstrikes on targets designated by the United Nations. For these tasks, the aircraft were loaded with HARM (high-speed anti-radiation) and Sidewinder missiles for self-protection, as well as laser-guided and conventional bombs. The detachment took part in successive



A KC-130 Hercules air-to-air refuelling aircraft returns to Aviano air base after supplying fuel to Allied fighter jets in the Adriatic.



An EF-18 fighter jet from the 15th Wing is refuelled in flight during one of the missions over Bosnia and Herzegovina.

operations in the former Yugoslavia. Special mention should be made of operation Deliberate Force in the summer of 1995, NATO's first offensive action in its 46-year history, as it allowed the siege of Sarajevo to be lifted and forced the warring parties to negotiate and reach the Dayton Accords in December 1995. The United Nations transferred authority to the NATO-led Implementation Force (IFOR), and thereby the UNPROFOR mission came to an end. Likewise, operation Deny Flight ended and Joint Endeavour began. On 20 December 1996, the Stabilisation Force (SFOR) replaced the Implementation Force (IFOR) in Bosnia and Herzegovina, giving way successively to operations Joint Guard and Joint Forge.

On 15 June 1998, the Spanish Air Force took part in NATO air exercise Determined Falcon over Albanian and Macedonian airspace to demonstrate the Alliance's commitment to peace and stability in the region.

A year later, NATO air forces were compelled to step in once again due to the worsening situation in the Serbian region of Kosovo. Operation Allied Force, which involved the EF-18 and Hercules aircraft deployed at Aviano air base, lasted from 23 March to 10 June 1999, the date on which the Serbian regime was forced to call for a ceasefire. In 79 days of bombing over the former Yugoslavia, Spanish Air Force fighter jets

The collective Air Medal recognised the work of the members of the detachment

flew more than 200 sorties on patrol and attack missions, in some cases leading Composite Air Operations (COMAO).

The professionalism of the members of the 'Ícaro' detachment was recognised on 7 April 2000, when the Spanish Council of Ministers agreed to award them a collective Air Force Medal. This commendation, which is the Spanish Air Force's highest military award in peacetime, recognised, according to the Royal Decree, "the brilliant performance of the detachment since its creation and, in particular, in operations Deliberate Force and Allied Force, often assuming situations of extraordinary risk in which the distinguished courage, as well as the military and professional virtues of those who have formed this unit, have been demonstrated".

On 1 July 2002, the 'Ícaro' detachment came to an end with an emotional ceremony in which the Spanish flag was lowered for the last time at Aviano.

Victor Hernández
Photos: Pepe Díaz

JAVIER COLOMINA,
NATO SPECIAL REPRESENTATIVE FOR THE SOUTHERN NEIGHBOURHOOD

“INSTABILITY AND CHALLENGES IN THE SOUTH DIRECTLY AFFECT OUR SECURITY”

Our southern neighbourhood is “a great source of opportunities, and dialogue and cooperation are the best tools”

NATO also looks south. Our strategic environment is going through a period of unprecedented instability and NATO has stepped up the defence of the Eastern Flank more than ever, but it has also significantly expanded its focus on the Mediterranean region by taking a 360-degree approach. An Action Plan establishing the role of Special Representative for the Southern Neighbourhood was approved by the Allies at the July 2024 Washington Summit. Javier Colomina, a Spaniard with extensive knowledge of the Alliance and dialogue with partners, was chosen for the position. Since 2021, he had been Deputy Assistant Secretary General for Political Affairs and Security Policy and Special Representative for the Caucasus and Central Asia.

As a Spanish diplomat, he held posts at the Mission of Spain to the UN, and at the embassies in Syria, Argentina and Japan, and was Deputy Permanent Representative of the Spanish Delegation to NATO. His extensive background has allowed him to assume his new role with an awareness of the complexity and challenges of a region that extends from the

Sahel to Iraq, but also with the conviction that the Alliance can bring stability through practical cooperation, dialogue, and “an approach based on the principle of local ownership”. Colomina, who was born in Madrid 49 years ago, claims that his appointment comes in recognition of Spain’s involvement in NATO and, specifically, due to its steadfast defence for years of the need to look South.

—What are the main challenges of your new position?

—The Middle East, North Africa and the Sahel are regions of strategic interest to the Alliance. The instability and challenges in these areas directly affect our security and the security of our partners. We are aware that the situation in our southern neighbourhood is increasingly complex, with a number of challenges —demographic, economic, political and security—, which are all interconnected and exacerbated by the impact of dynamics such as climate change, fragile institutions, health emergencies and food insecurity. Over the past year, conflict and instability in the region have multiplied these challenges. Meanwhile, Russia has

continued to increase its presence in the South, China has stepped up its influence, and Iran’s destabilising effect in the Middle East has become more worrying than ever, with far-reaching implications for the security of our partners and the Alliance.

Despite the challenges we face, we must also bear in mind that the southern neighbourhood is a great source of opportunity. Through dialogue and cooperation with our partners in the Middle East and North Africa, NATO has been trying for years to promote greater security and stability in these regions, thus contributing to peace and prosperity. Our partners help us improve our regional situational awareness and have participated in our missions, operations and activities.

—A Southern Action Plan with a roadmap and concrete actions was also approved. What does this entail?

—The Action Plan provides the basis for NATO to develop a more robust, strategic and results-oriented approach to its cooperation with the southern neighbourhood. It is a comprehensive, detailed and ambitious document that will allow us to further strengthen our dialogue and



engagement with partner countries and other potential partners in our southern neighbourhood. Additionally, we will enhance our practical cooperation by using a coherent, effective and transparent approach and by strengthening existing instruments, such as the Defence Capacity Building Initiative, our Hub for the South in Naples, and the NATO-ICI Regional Centre in Kuwait, among others. It will also help us ensure that these efforts are commensurate with the right level of NATO visibility and presence in the South. We plan to open a liaison office in Amman and to expand our strategic communications outreach to regional audiences in a more proactive manner. Finally, the Action Plan highlights the importance of closer cooperation with other international and regional organisations.

— **At the Vilnius Summit in July 2023, Allied members decided to start a reflection process on how to enhance NATO's role in the South and the Secretary General commissioned an independent group of experts to submit a report. To what extent will the conclusions of this report affect your new responsibilities?**

—The group of experts provided important recommendations that served as the basis for many of the decisions taken by Allied leaders at the Washington Summit. One of the key recommendations reflected in these decisions is the appointment of a Special Representative.

The experts also pointed out that NATO should continue taking a comprehensive approach, centred on political dialogue, outreach and practical cooperation, both with partner nations and regional and international organisations, along with more investment in training and capacity building to manage highly complex secu-

“It is a very complex area, with a number of demographic, economic, political and security challenges, which are all interconnected”

riety challenges. They also highlighted priority areas on which NATO could focus its cooperation efforts in the South, such as the fight against terrorism, maritime security, resilience, climate security, the Women, Peace and Security agenda and the Human Security approach.

— **The Southern Neighbourhood concept encompasses a geographical space with different realities. How will the Alliance approach this diversity?**

—We want to substantially increase political dialogue and practical cooperation with our partners and other actors in the Middle East and Africa. In doing so, we will specifically concentrate on providing a clearer explanation of the Atlantic Alliance, the guiding principles of our partnerships, and our added value.

We will also explain which areas we will work in with our partners —taking into account their requests and our experience—, and which areas we do not need to play a specific role in when it comes to matters that are beyond our scope.

Stepping up dialogue with relevant regional organisations, such as the African Union, the Gulf Cooperation Council and

the League of Arab States, will also help us expand the focus and scope of our efforts.

—Trust and cooperation have been essential features of the Mediterranean Dialogue and the Istanbul Cooperation Initiative. Will they be encouraged?

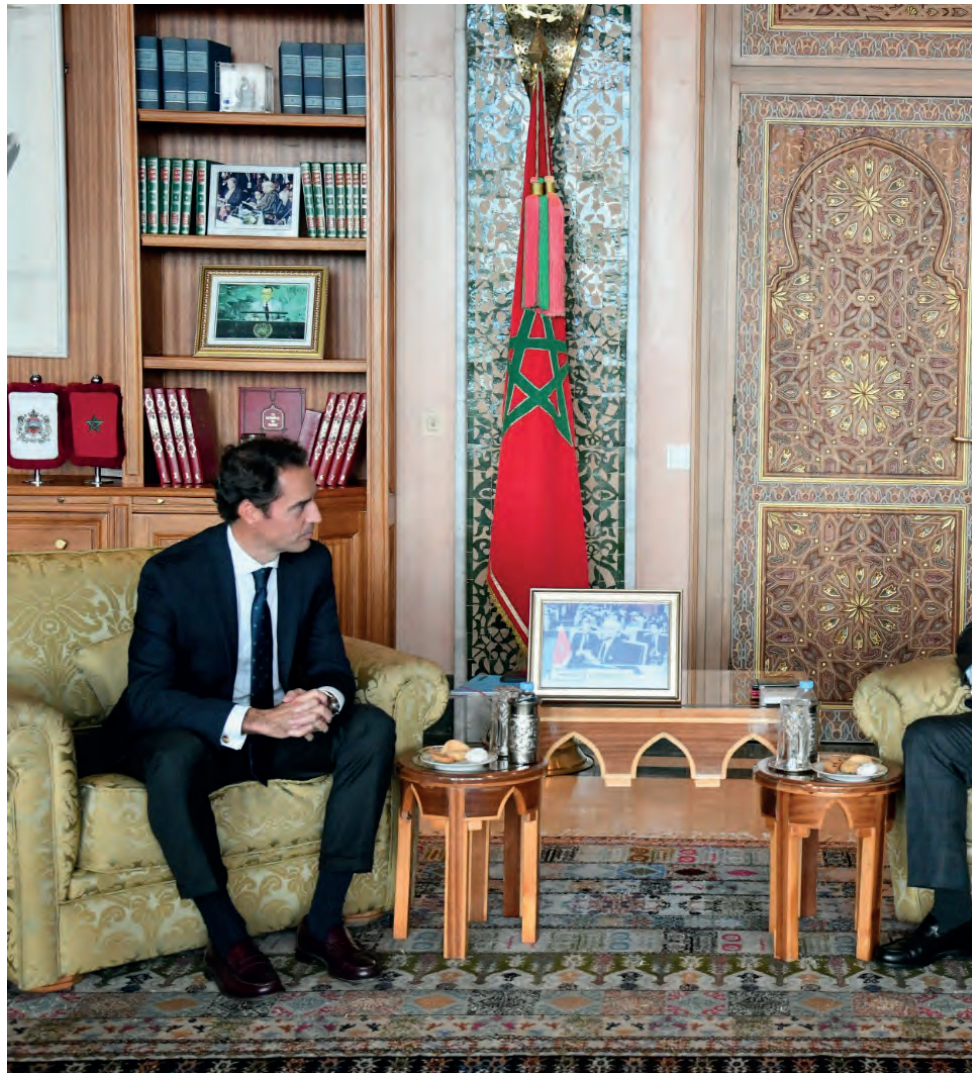
—These two initiatives are historical partnership frameworks that we have developed throughout the Middle East and North Africa region over the years on the basis of political dialogue and practical cooperation. This year we are celebrating their 30th and 20th anniversaries, respectively. Both serve as forums for enhancing security and stability in our southern neighbourhood and help promote good relations among participating countries. Within these frameworks, Allies and partners have worked and continue to work together in many areas, including counter-terrorism, defence capacity building, cyber security, small arms and light weapons, crisis management, civil preparedness, resilience, and the Women, Peace and Security agenda.

—As for military cooperation, is the Alliance considering new training missions such as the one currently underway in Iraq?

—Our approach to partners in the southern neighbourhood has always been and will always be based on the principle of local ownership. In the coming months, we will establish a NATO political office in Jordan, in response to a specific request from the Jordanian authorities. Our Action Plan foresees that, with our partners' consent and request, we will look into the possibility of opening additional offices in the region.

As far as our NATO Mission Iraq (NMI) is concerned, I am unable to anticipate whether or not it will be repeated, and, if so, in what form. What I can surely say is that NMI is a success story. In response to a specific request from the Iraqi authorities, our non-combat, advisory, and capacity-building mission was created in 2018 and has since evolved in a progressive manner.

The Iraqi authorities have identified a number of key objectives for cooperation with NMI. These include security training, logistics, cyber defence and good governance. From August 2023, at the request of the Iraqi authorities and upon the decision



Javier Colomina talking with a Moroccan government official during his visit to the Maghreb country in October

of the North Atlantic Council, the scope of action of NATO Mission Iraq also includes advisory and capacity-building activities to support the Iraqi Ministry of the Interior and the Federal Police Command. All NATO Mission activities are conducted with the consent of the Iraqi government and with full respect for its sovereignty and territorial integrity.

In order to strengthen our long-standing cooperation, NATO and Iraq have initiated a process of political dialogue that I have had the honour to co-lead. This process culminated in a meeting with Qasim al-Araji, the Iraqi National Security Advisor, who led a high-level official visit to NATO Headquarters at the end of August 2024.

—What can the Alliance do to help bring peace to the Middle East?

—As an organisation, NATO has no direct role in this matter. That said, our po-

sition on recent events has been clear and consistent throughout. Every effort must be made to prevent further escalation of the conflict and more casualties, and to put an end to the humanitarian catastrophe in Gaza. The impact of the conflict is devastating, not only for the people of Gaza but also for Israel's security, and the risk of escalation in the region continues to grow.

We welcome the Allies' tireless diplomacy to achieve a cessation of hostilities and de-escalation of the conflict. In order to secure lasting security, it is crucial to find a way to permanently cease the violence in Gaza and the region.

The Israeli government has been urged by the Allies to adhere to international law and human rights when conducting military operations. At the same time, Hamas must stop its attacks and release all hostages.



OTAN

2024 as part of the Mediterranean Dialogue process.

We are also quite concerned about the most recent events in Lebanon. A new escalation of the war in the Middle East is in nobody's interest. The Allies called for and supported a cessation of hostilities between Israel and Hezbollah in Lebanon in order to facilitate a diplomatic agreement.

—The Sahel is one of the world's most unstable regions. How does the Alliance view this reality?

—Indeed, the Sahel is a highly fragile and complex region. It poses considerable security challenges, ranging from terrorism to human trafficking and illegal immigration, to name just a few.

All of them with direct implications for our security and the security of our partners. In this regard, I would like to recall our long-standing partnership with Mauritania, which joined the Mediterranean Dialogue in 1995. Last May, Hanana Ould Sidi, the country's

defence minister, visited our headquarters to take stock of our relations and agree on the way forward.

The NATO-Mauritania partnership has grown significantly over the years, with notable advancements in areas such as support for Mauritanian special operations forces, information sharing on maritime security, military career transition programmes, management of small arms arsenals, and military training. We look forward to enhancing this long-standing cooperation, among other things, to support and enrich the Mauritanian forces' capacity to fight terrorism. At the same time, I think it is crucial that we keep expanding the scope of our dialogue with the region, not only through Mauritania but also through the pertinent regional organisations.

—How does NATO view Moscow's involvement in destabilising various regimes in the region?

—An insufficient presence in a region undoubtedly leads to other actors filling the void and promoting their own interests. This is particularly evident in the current geopolitical situation, in which different countries work and cooperate with whomever they see fit in order to further their national interests. In this context, it is undeniable that Russia has a foothold in the region and that its presence exacerbates local and regional instability.

This is why it is even more important that we engage with our partners in the southern neighbourhood through constant political dialogue, practical cooperation —particularly in areas such as the modernisation of security forces, structures, and institutions, where NATO has significant experience and added value—, as well as robust public communication and outreach efforts to explain what NATO's partnership policy is all about.

“It is undeniable that Russia has a foothold in the Sahel and that its presence exacerbates instability”

—What is the nature of NATO's collaboration with the European Union and the African Union?

—NATO has well-established relations with these organisations and, in particular, with the EU, which is an essential partner for us. The magnitude of the challenges we face in our southern neighbourhood justifies our joint exploration of the potential for further strengthening those ties. To this end, I have already held meetings with my interlocutors at the UN, the African Union and, in particular, the European Union.

—Is your appointment a recognition for Spain?

—Over the years, Spain has been a strong advocate of the need to further focus on the South. Madrid played a significant role in the process that led up to the launch of our Southern Neighbourhood Action Plan and continues to contribute greatly as we now enter the implementation stage. In fact, Spain hosted the first meeting of Senior Allied Officials on NATO's Southern Neighbourhood in November 2024, where they discussed the priorities of the Action Plan and exchanged views on the latest developments in the region and how they affect NATO security. My appointment therefore reflects, to some extent, that commitment. However, it is also a recognition of the years of service in this organisation and the efforts made to strengthen the relationship with our partners, especially during my time as Special Representative for the Caucasus and Central Asia.

—What role should our country play in this new 360-degree approach that must prioritise the South?

—Spain has historically played a crucial role in the region as a NATO member and will continue to do so. Overall, Spain continues to be an essential ally, as evidenced by the contributions our nation makes to every aspect of NATO's agenda, including strengthening its deterrence and collective defence posture, supporting Ukraine, combatting terrorism, and various operational deployments, such as sending troops to its mission in Iraq —which was led by Spanish Lieutenant General José Antonio Agüero Martínez until a few months ago—. Likewise, along with the air policing and maritime surveillance missions, Spain has also deployed troops to NATO's multinational battlegroup in Slovakia, Latvia, and Romania.

Rosa Ruiz

SUDAN: DESOLATION, HUMANITARIAN CATASTROPHE AND OBLIVION IN EASTERN AFRICA

The nation has been engulfed in civil war since April 2023, claiming thousands of lives and leaving thousands more displaced, while the international community attempts to reach a challenging ceasefire



A young Sudanese girl cooling off at a fountain in the village of Omar al-Mukhtar, near Khartoum, where there is a school for refugees.

Fred Noy/ONU

THE power struggle between the Sudanese Armed Forces (SAF) and the paramilitary Rapid Support Forces (RSF) has plunged the country into a scenario of death and desolation, causing a deep humanitarian crisis. All peace initiatives have so far failed, and confrontations are still being fuelled by the conflicting interests of external actors. Sudan became an independent and sovereign state on 1 January 1956 by agreement between the UK and Egypt. Since then, the history of this African giant has been a succession of military uprisings and dictatorial governments, against the backdrop of an almost permanent theatre of war. Violence erupted throughout Sudan at the beginning of this century under President al-Bashir's absolute power since 1989 in the form of armed uprisings in the states of Port Sudan and Kordofan; secessionist rebel groups in the southern region that, after five decades and two million lives lost, secured South Sudan's independence in 2011; and, in 2003, the ruthless genocide committed in the Darfur region by the Janjaweed ("horsemen on horseback"), led by al-Bashir himself, as declared by the International Criminal Court in 2010.

In April 2019, when nothing augured that Sudan's future would be either peaceful or promising, the overthrow and imprisonment of Al Bashir brought about an unexpected turn of events that was to change the country's future. Seven months earlier, the city of Atbara had become the epicentre of a peaceful social uprising that, in just a few days, spread throughout the country. Under the slogan "freedom, peace and justice", the Association of Sudanese Professionals succeeded in uniting the entire Sudanese population in its desire for change, despite the bloody repression of the powerful and omnipresent military power.

After overthrowing the dictator with the army's blessing, a civilian-military government was agreed upon, which, after a period of transition, was expected to establish a democratic regime in Sudan. Although the road was strewn with obstacles, civilian leaders took on the task of reforming security institutions despite the reluctance of the Armed Forces, who systematically opposed any significant changes to state institutions. But the Transitional Sovereignty Council, which was the cohabita-



Sudan's capital, Khartoum, filled with smoke after the clashes in April 2024 that started the war between the Sudanese Armed Forces (SAF) and the paramilitary Rapid Support Forces (RSF).

tion government with Abdalla Hamdok as prime minister, was becoming unsustainable, and a failed coup attempt in September 2021 attributed to al-Bashir's partisans served as a wake-up call.

A month later, on 25 October 2021, the Sudanese hope for peace and good governance was abruptly and definitively cut short after the second, and this time successful, military uprising. This time, the coup was led by Sudan's two most powerful generals: Al-Burhan, Chairman of the Transitional Sovereignty Council (then the highest national authority) and Supreme Commander of the Sudanese Armed Forces (SAF); and Mohamed Hamdan Dagalo, alias Hemedti, commander of the paramilitary Rapid Support Forces (RSF)

**There is little chance
that the civil war
currently bleeding
the country to death
will end in a peace
agreement**

and Deputy Chairman of the Sudanese government. Following the arrest of Prime Minister Hamdok, along with several ministers and leaders of the Sudanese Professionals' Association, al-Burhan declared a state of emergency and halted the democratic transition. However, the demands of much of the international community — especially the Arab League and the African Union — led to Hamdok's return to office. But he resigned permanently in January 2022 after realising he was now irrelevant in the new national government.

By then, and without civilians in Sudan's government, al-Burhan and Hemedti — two generals who had been promoted to the highest military rank by al-Bashir as a reward for their unwavering loyalty — became the country's highest authorities despite the overwhelming rejection of civil society. With great resignation, the African and international community had no other choice than to accept the pledge of these two generals to continue with the transition process until the April 2023 elections, which were systematically postponed. They also promised to address the unification of the Sudanese Armed Forces and the RSF into a single national institution. However, any government agreement was unfeasible due to their eternal rivalry, their inordinate lust for power and their



Albert González/ONU

Women and children in the UN-supervised Women's Centre in Abu Shouk IDP Camp in North Darfur.

disagreements over the political configuration of the Sudanese state. Instead, they strengthened their external alliances in order to garner support for their respective causes. In this confrontational scenario, the failure of military reunification served as a pretext for conflict, and it became clear that the two generals' sole goal was to preserve their power and control over the country's vast resources and immense natural wealth.

AND WAR BROKE OUT

The war between the Sudanese Armed Forces and the paramilitary Rapid Support Forces ultimately erupted in the capital city, Khartoum, on 15 April 2023. Within days, the conflict spread throughout most of the country, while the Sudanese population remained trapped and defenceless in the crossfire between the two military factions. The confrontation soon extended to the states of Gezira and Kordofan, which are home to the major oil fields. It also reached the hard-hit Darfuri region, which is full of gold mines, mostly controlled by Hemedti, who is reviled for being the leader who planned and led the 2003 Darfur massacre at the command of the Arab Janjaweed militias. As a result, both parties have made oil and gold the ultimate goal of the war since, in addition to serving their own interests, their legal and

illegal sales overseas provide the funding that fuels both the SAF's and the RSF's war machine.

After 20 months, the conflict remains in an attrition phase. However, it is becoming increasingly obvious that the paramilitary forces, who control the states of Darfur, North and South Kordofan, and are enforcing a continuous siege on the capital, Khartoum, have a territorial advantage. Attacks by both sides are now spreading throughout most of Sudan, presenting a dramatic scenario of violence and destruction, while attempts to reach a ceasefire continue to fail.

So far, none of the armed factions, both of which are accused of war crimes by various human rights organisations, has achieved a decisive victory. The Sudanese Armed Forces have more than 200,000 troops and are equipped with tanks, long-range artillery and fighter jets. However, this notorious superiority has not been enough to defeat the RSF (between 100,000 and 150,000 paramilitary troops). The latter are lighter forces that are better prepared to fight in urban areas, and are responsible for the biggest killings among the Sudanese population.

Major combats continue to take place in the Darfur region, where there are important cross-border trade routes and where the smuggling of fuel and weapons,

especially from Libya and Chad, is actually stimulating the clashes. Against this backdrop, the RSF are using their military dominance to maintain their siege on Al-Fashir, the capital of North Darfur. Al-Burhan's regular military force still has some control over this city. However, it still tries to win over former rebel groups—who are now unified as defence militias in the Darfur Joint Protection Force under Governor Minni Minawi—and like-minded ethnic groups, to whom it provides weapons in an effort to weaken Hemedti's forces.

As many international organisations and humanitarian assistance agencies have reported, the conflict has sown death, devastation, and suffering, not only in Darfur but also throughout Sudan, where both factions have been accused of war crimes, particularly indiscriminate bombing in populated areas. The United Nations claims that the death toll now stands at over 20,000, although a US report brings the number to 150,000. In any case, it is impossible to confirm the number of people killed in this war, as it is unfeasible to carry out on-site verifications. Furthermore, the collapse of the health system—80 percent of the country's hospitals are out of service—has also resulted in many deaths; hundreds of villages have been devastated; the mass destruction of schools has prevented 20 million children from receiving an education; and Human Rights Watch claims that gang rape and the kidnapping of women are frequent occurrences.

Conversely, the difficulty of delivering humanitarian aid increases the immediate risk of famine. Nearly half of the 48 million people living in Sudan are suffering from acute hunger. Despite the magnitude of the human tragedy, the catastrophe is unquestionably even worse than it seems, since it is nearly impossible to know what is actually going on in Sudan, which is ruled by an iron-grip and dictatorial military government. As a result, public demonstrations are routinely put down, while press freedom, information verification, and access to humanitarian cooperation agencies are all becoming increasingly restricted.

"These numbers are staggering, and we cannot turn our backs", stresses the new UN humanitarian affairs chief, Tom Fletcher, who has called for immediate international action to address Sudan's

deepening crisis, highlighting the mass flight of the population from their homes. Over 12 million people have been forced to move in appalling conditions to safer places or to refugee camps inside or outside of the country. “It is the fastest growing crisis in the world, with an average of 20,000 people displaced every day”, says Fletcher, “and yet the world is not responding with the solidarity and support that is needed”. Moreover, despite the severity of the war and the brutality against civilians, it is being waged outside the media spotlight and the general interest of the international community, which makes it even more difficult to move towards a settlement. In fact, both sides are using the lack of interest in this conflict to further exploit the armed struggle as the sole means of resolving their disputes and, eventually, seizing power.

The international stance has become a key factor in this conflict and sometimes even causes clashes between the two parties and brutal attacks on civilians. However, it will also be decisive and necessary to bring about peace, which in turn cannot be achieved if external interference that merely seeks to safeguard its spurious interests continues. On the one hand, Saudi Arabia and the United Arab Emirates are facing off in Sudan. Both countries participated in the establishment of a transitional government in 2019. However since the coup d’état in 2021, they have sided with al-Burhan and Hemedti, respectively, in an effort to seize control of Sudan’s energy resources and capitalise on their privileged strategic position in the Red Sea. Egypt, on the other hand, which has maintained its presence in Sudan and has consistently opposed the civilian transition that started in 2019, advocates leading the peace talks. However, Hemedti has accused Egyptian President El-Sisi of supporting al-Burhan by sending troops and fighter jets, accusations that the Egyptian government systematically denies.

Both warring parties also have strong ties with Russia. Although the Russian mercenary Wagner Group has supported Hemedti’s RSF militarily during the conflict on behalf of the Kremlin, its ties to al-Burhan’s businesses are also apparent. In or-

der to maintain this self-interested balance and to safeguard its stubborn claim to a naval base in the Red Sea, Russia did not hesitate in November 2024 to veto a UN Security Council resolution tabled by the UK and Sierra Leone. It called for an immediate cessation of hostilities because —according to Russian representative Poliansky— the resolution amounted to “imposing a Council decision on the Sudanese [...] Our country will continue unflinchingly to use its veto to prevent such events from happening to our African brothers”.

LITTLE HOPE

All regional and international efforts to facilitate peace talks and establish an interim government in Khartoum have been unsuccessful so far. In Africa, the African Union



Sudanese Armed Forces commander, General Abdel Fattah al-Burhan, greeting his partisans during his visit to the Masawi region in August 2024.

—the guarantor organisation for implementing “African solutions to African problems”— suspended Sudan’s membership following the 2021 coup. However, since the outbreak of the war, its internal division —marked by the member states’ support for either al-Burhan or Hemedti— has prevented Sudan from exercising strong leadership in resolving the conflict. Both the peace initiatives of the Intergovernmental Authority on Development (IGAD), which unites the nations of the Horn of East Africa, and the UN-brokered ceasefires, which have been systematically violated by the two factions, have failed. For their part, in May 2023, Saudi Arabia and the US managed to bring delegations from both warring parties together in the Saudi city of Jeddah. Then again, the talks were

suspended sine die after months of heated negotiations and unfulfilled agreements. All hopes were pinned on the Geneva talks of August 2024, which were attended by delegations from the UN, the African Union, the IGAD, the United States, Saudi Arabia, the UAE and Egypt. While an RSF delegation showed up, the leaders of the Sudanese Armed Forces refused to attend, claiming that they were not recognised as the military force of Sudan’s legitimate government. “Though we were in consistent communication with SAF virtually, we regret their decision not to be present, and we believe that limited our ability to make more substantial progress towards key issues, particularly a national cessation of hostilities”, the international mediators said. Finally, the warring parties agreed to improve access for humanitarian aid, mainly to the hard-hit Darfur region; however, this agreement once more did not materialise on the ground.

Despite the failure of the first round conference in July, Egypt finally announced in early December its intention to hold a second round shortly with the participation of all Sudanese factions and political forces. Egyptian Foreign Minister Badr Abdelatty stressed that Egypt “is ready to contribute to initiatives to restore stability in Sudan, halt the ongoing conflict, and safeguard the lives of Sudanese citizens”.

Undoubtedly, a definitive cessation of hostilities will only be achieved through an inclusive and comprehensive dialogue. However, in order to achieve this, it is imperative to promote the pressure and attention coming from the international media, and to halt the external intrusions that are fuelling this forgotten and devastating conflict. And after reaching a peace agreement, which is still a long way off, it will be essential to build a stable and sustainable future for Sudan under the leadership of a civilian-led democratic regime. Otherwise, it will only be a matter of time before war returns to Sudan, while its people, who are the main victims of the ongoing misrule and terror in the country, will once again suffer its dramatic consequences.

Jesús Díez Alcalde
Colonel, Spanish Army. Analyst

The Technological Centre for Development and Experimentation in Jaén will meet the need for disruptive technology-related military capabilities

Technological revolution on the battlefield

Major General (r) Jesús Carlos Gómez Pardo
Dr. Ordnance Engineer

WE live in a convulsive world, and in our haste to systematise, we refer to this world as VUCA (volatile, uncertain, complex, and ambiguous), an acronym that has defined our environment since the fall of the Berlin Wall. The year 2020 witnessed the emergence of a new black swan, the COVID-19 pandemic, which profoundly affected our lives. The term FANI (fragile, anxious, non-linear, and incomprehensible) was coined in the wake of the pandemic to describe the fragility of these times. While VUCA focuses on the factors causing uncertainty and complexity, FANI focuses on the effects they have on organisations.

The stable, known, parametrisable, and future-predictable world of blocs that characterised the Cold War is now history. The fall of the Berlin Wall in 1989 upset the geopolitical balance and precipitated a series of events. In Europe, the 2013 Ukrainian Euromaidan uprising was followed by Russia's illegal annexation of the Crimean Peninsula in 2014, and the subsequent invasion of another part of Ukraine's territory in 2022. The impact on our society is proving to be enormous.

Instability prevails in the rest of the world. Thus, the Gaza conflict, US-China tensions, the melting of the Arctic or the weakening of transatlantic relations lead us to think that the world we have lived in will never be the same.

Spain is not excluded from this complicated geopolitical reality that poses huge challenges to global security. As part of Spain's commitment to our partners, our Armed Forces participate in 17 operations abroad with over 3,000 soldiers and civil guards on four continents.

On the other hand, this instability and uncertainty in global geopolitics is catalysed by the technological revolution in which we are immersed. Our society is evolving at a dizzying pace with the emergence of new technologies that are bringing about profound changes in the way we think and act, and are accelerating the transition to the digital era.

Our Armed Forces, which are an integral part of society, are undergoing a process of digital transformation that is changing the art of war. Examples of a reality that is significantly modifying current operational concepts include a transparent, digitised and hyper-connected battlefield; network operations; well-equipped combatants who serve as nodes in the warfighting network; and the widespread use of unmanned vehicles, autonomous systems, drones, and armed robots acting individually or in a collaborative manner.

The only way we can overcome technological challenges, unknown futures, and huge security issues is by developing agile structures, adapting constantly to the rapidly changing environment, and creating more adaptable and resilient organisations that allow us to survive and operate in an increasingly uncertain and complex environment.

The extensive use of drones is one of the fundamental changes that has been highlighted in Ukraine



LESSONS LEARNED

From the war in Ukraine we can cautiously draw the first lessons learned, as set out in a paper produced by the Joint Concept Development Centre (JCDC) of the Joint Chiefs of Staff.

Russia's illegal invasion of Ukraine seems to have brought us back to a conventional high-intensity conflict, although with certain exceptions: both parties are making extensive use of specific emerging and disruptive technologies characteristic of modern conflicts; there is also a clear confrontation between Russia and the West in the "grey zone"; and all this against the backdrop of the nuclear threat. Operations are being carried out in the multidomain operational environment, which integrates both the physical (land, sea, air, and outer space) and the non-physical (cyberspace and cognitive space) domains established by the Spanish doctrine.

Moreover, some significant changes in battle, associated with digitalisation, have been identified, with the extensive use of drones standing out as particularly noteworthy.

From this terrible and highly attritional conflict, and focusing on its technological aspects, we can draw the following conclusions: that intelligence, surveillance, reconnaissance and target acquisition capabilities are key to operational superiority; that on the battlefield it is critical to have long-range precision fires to hit targets, minimising collateral damage and moving away from counter-battery actions; that heavy firepower is necessary to saturate the adversary; that the battlefield is becoming digital, and that it is now evident that in order for network operations to be possible, we need to ensure that sensors and combat systems are interconnected with management

centres and fire-producing or effector elements; and finally, that it is crucial to have robust, redundant, and highly mobile command and control systems (C2) in order to ensure this interconnection. Additionally, electronic warfare capabilities must be able to operate in the electromagnetic spectrum with the necessary superiority in order to guarantee operability in degraded environments and freedom of action in the five operational domains.

It is therefore essential to have powerful electronic warfare systems capable of jamming the adversary's PNT (position, navigation and timing) signals, but without affecting our own systems. The situation is similar in the Gaza conflict. The widespread use of Israeli electronic warfare prevents Hamas, Hezbollah, and any other group operating in the area without PNT supremacy, from effectively utilising their weapons systems. This is known as navigation warfare (NAWWAR).

NEW MILITARY CAPABILITIES

These lessons have led to the need to equip our soldiers with new military capabilities in light of the disruptive technologies emerging on the battlefield, which are described below.

• Navigation warfare

Most sensors and systems used on the battlefield (command and control systems, communications or navigation and guidance subsystems) use the satellite navigation signal to ensure precise PNT. However, they are highly vulnerable as the satellite navigation signal may be degraded or denied. Due to their heavy reliance on this signal, these systems are particularly sensitive to spoofing and jamming attacks. If we bear in mind that the use of jammers has become widespread in all types of

conflicts due to their efficiency, low cost and ease of implementation, we can understand the enormous vulnerability of these systems.

The loss of the satellite navigation signal increases positioning errors and, therefore, weapon systems using satellite navigation in unstructured environments (degraded or denied signal) are rendered useless for combat. Navigation warfare is defined as the set of actions and technical measures that ensure the superiority of PNT information. NAVWAR is responsible for protecting our navigation systems —those that provide geographical positioning and those that offer reference timing signals— and for degrading the adversary's positioning, navigation and timing information.

There are three ways to ensure a robust PNT signal: by protecting our satellite navigation systems through various techniques; generating an independent timing reference; or using alternative navigation systems, such as terrain-based navigation systems.

In the Ukrainian conflict, we have been able to see the state-of-the-art electronic warfare equipment used by the Russian military. In particular, their GPS (Global Positioning System) jammers are capable of operating at a distance of over 500 km, which allows them to jam Ukraine's satellite guidance and positioning signals, thus preventing the use of precision-guided munitions, equipped with GPS/inertial terminal guidance, or the operation of Ukrainian drones. These Electronic Warfare (EW) capabilities, which are among the most important in the world, have seriously hampered the actions of the Ukrainian military. The issue is of such relevance that the US Department of Defense created the Joint Navigation Warfare Centre in 2004.

As a result, we need to develop technologies that allow us, on the one hand, to ensure a robust PNT signal for those systems that use satellite navigation, such as the Excalibur precision-guided munition, or the combat vehicle navigation systems, and, on the other, to deny the adversary's signal.

• Anti-drone defence

Another important aspect of the conflict in Ukraine is the massive use of drones for intelligence gathering, surveillance, target acquisition, reconnaissance, or the destruction of tactical targets —either used as low-cost precision weapons or to collapse air defences through swarm attacks—.

In its operations, the Russian military is using simple drones, such as the Orlan-10, for surveillance, reconnaissance and elec-

tronic warfare missions. It also has higher capacity drones, such as the Iranian Shahed-136, which causes terrible physical and psychological effects when used in swarms and as loitering munition.

A swarm drone attack is, therefore, a real threat for which we are not yet adequately prepared. In this regard, NATO requires anti-drone systems or C-UAS (Counter-Unmanned Aerial Systems) to have a minimum set of capabilities.

The development of technologies to counter drones has become a top priority due to their rapid evolution and drone usage tactics. It is paramount to have C-UAS systems capable of locating, identifying and tracking the single or swarming drone threat, by developing different types of technologies, such as two- or three-dimensional radars, IR/VIS (infrared-visible) detectors, RF drone detection and location systems, or threat location and identification systems that use the Mavlink protocol. They must also be capable of neutralising the

drone threat, using either electronic warfare techniques such as jamming or spoofing, that act on the drone's radio link or geolocation signal (soft kill), or physical destruction techniques, such as kinetic effectors, laser weapons, nets, electromagnetic pulses, defensive swarms, etc. (hard kill).

Furthermore, artificial intelligence applications will need to be created for a thorough simulation of the battle environment and for an efficient C-UAS integrated combat management system to ensure the security of any operation.

• Autonomous vehicles

Autonomous land vehicles are also being used extensively in the Ukrainian conflict, and particularly naval autonomous vessels, a domain in which Ukraine is achieving great success in its Black Sea operations. Therefore, robotics and autonomous vehicle technologies must be developed in order to automate drive-by-wire systems, as well as to develop advanced driver-vehicle interfaces, and technologies for interaction between unmanned ground vehicles and unmanned aerial vehicles (UGV-UAV).

In addition, other critical technologies have been identified that require AI (Artificial Intelligence) models and algorithms for their maturation, including sensor fusion, precise positioning in complex environments, autonomous navigation in unstructured environments, development of automation algorithms, route planning and collaborative operation.

• Logistics transformation and AI

Alongside the enormous current computing capacity, technological tools are emerging such as artificial intelligence (AI), cyber-physical

**CETEDEX will be
a benchmark
in the fields of
autonomous and
connected vehicles,
anti-drone
defence and AI**



systems, machine learning, cloud systems, big data, etc. And, as a result, the twelve technologies associated with Industry 4.0 that optimise logistics processes. The Army and Navy logistic support commands are undergoing a profound transformation of their structures, evolving from reactive-preventive logistics to predictive logistics (logistics 4.0), based on digital transformation.

The new logistical processes will make it possible to maximise the operational availability of weapons systems, which is the ultimate goal of military logistics. It is therefore a top priority to have the capability to develop technologies and tools aimed at the predictive maintenance of buildings and weapons systems through the use of Industry 4.0 technologies.

AI is conceived as a cross-cutting enabling tool. We have seen that both the technologies associated with NAVWAR and the development of autonomous vehicles and anti-drone systems need the support of AI applications. Thus, AI developments in this field should focus on the automatic and intelligent analysis of massive amounts of data from weapons system sensors; the development of technologies for the predictive maintenance of platforms; and the intelligent analysis of information sources to aid in decision-making.

CETEDEX PROJECT

We are witnessing terrible conflicts that are affecting global security and posing major challenges to our way of life. Disruptive technologies have been used in these conflicts and have significantly altered military operations. The lessons learned highlight the need to equip our soldiers with military capabilities beyond what was previously anticipated.

We must therefore develop technologies, in the form of advanced weapons systems, that give fighters a clear operational advantage on the battlefield. And the Technological Centre for Development and Experimentation (CETEDEX) in Jaén was conceived specifically for this scope of action. It was designed as a centre for the agile development of those security and defence technologies that will enable us to successfully deal with new threats to global security.

CETEDEX was established to respond to this need. Its mission is to develop, certify and experiment dual-use technologies that offer groundbreaking and transformative solutions in the fields of autonomous and connected vehicles, anti-drone defence and AI. An opportunity project that will start operating by the end of 2026 and will be fully operational by the end of 2028.



Charles V, first-born son of Joanna I of Castile and heir to the kingdoms of Spain and the Germanic Imperial throne.

PAVIA 1525

Charles V's great triumph in Italy

This year marks the 500th anniversary of the famous battle that contributed to the establishment of Spanish military hegemony in Europe

IN 1521, the Western world was about to witness a new chapter of the clash between the Spanish and French monarchies, with Italy once again serving as one of its main stages. French monarch Francis I was not pleased with the accession of Spanish king Charles I, under the name of Charles V, to the Imperial throne. Therefore, in an attempt to seek compensation, he invaded Flanders, which was then part of the Spanish crown, and backed the pretender of the House of Albret, originally from the south of France, to regain the throne of Navarre.

Both endeavours failed. Furthermore, the Imperial forces seized the Italian strongholds of the Milanese from France after their victory in the Battle of Bicocca in 1522, and even invaded French soil in Provence.

However, Francis I managed to turn the tables and entered northern Italy with an army of 30,000 men, occupying Milan without resistance on 25 October 1524.

BACKGROUND

The Spanish Emperor had entrusted the defence of Lombardy to Charles de Lannoy, Viceroy of Naples; Ferdinand d'Avalos, Marquis di Pescara; and Constable Charles de Bourbon, a French nobleman who had antagonised his sovereign and joined the Imperial ranks.

The Emperor's troops found themselves in a precarious situation after being compelled to leave the Milanese capital, due to French pressure, and settle in Lodi, on the left bank of the river Adda, a tributary of the Po.

Charles V's main stronghold on the opposite bank was the town of Pavia,

defended by the Spaniard Antonio de Leyva with about 5,000 soldiers, most of whom were German mercenaries.

Instead of pursuing the Imperials towards the Adda river, Francis I decided to make his way towards Leyva's domains with a powerful artillery-train and the bulk of his army, reinforced by Swiss and Italian soldiers.

OBJECTIVE: FORCE PAVIA TO SURRENDER

The French repeatedly attempted to storm the town from different positions, but to no avail. Moreover, the siege efforts were hampered by torrential rains that caused the Ticino, the river that lapped against the walls of Pavia, to rise.

Impatient, the French monarch ordered a general assault, which also failed, in mid-November 1524. However, he remained hopeful that the town would fall due to the garrison's dissatisfaction with

HISTORY



16th-century oil on panel painting, recreating the battle fought on 24 February 1525 at the gates of the Italian town of Pavia in which the Spanish infantry of Charles V played a decisive role. Below, scene of the battle painted by Rupert Heller four years after the confrontation; and an engraving depicting French king Francis I's surrender to the Imperial forces.



Rupert Heller



deb.

E. Varela lit.

BATALLA DE PAVIA.
Francisco 1º de Francia se entrega prisionero.

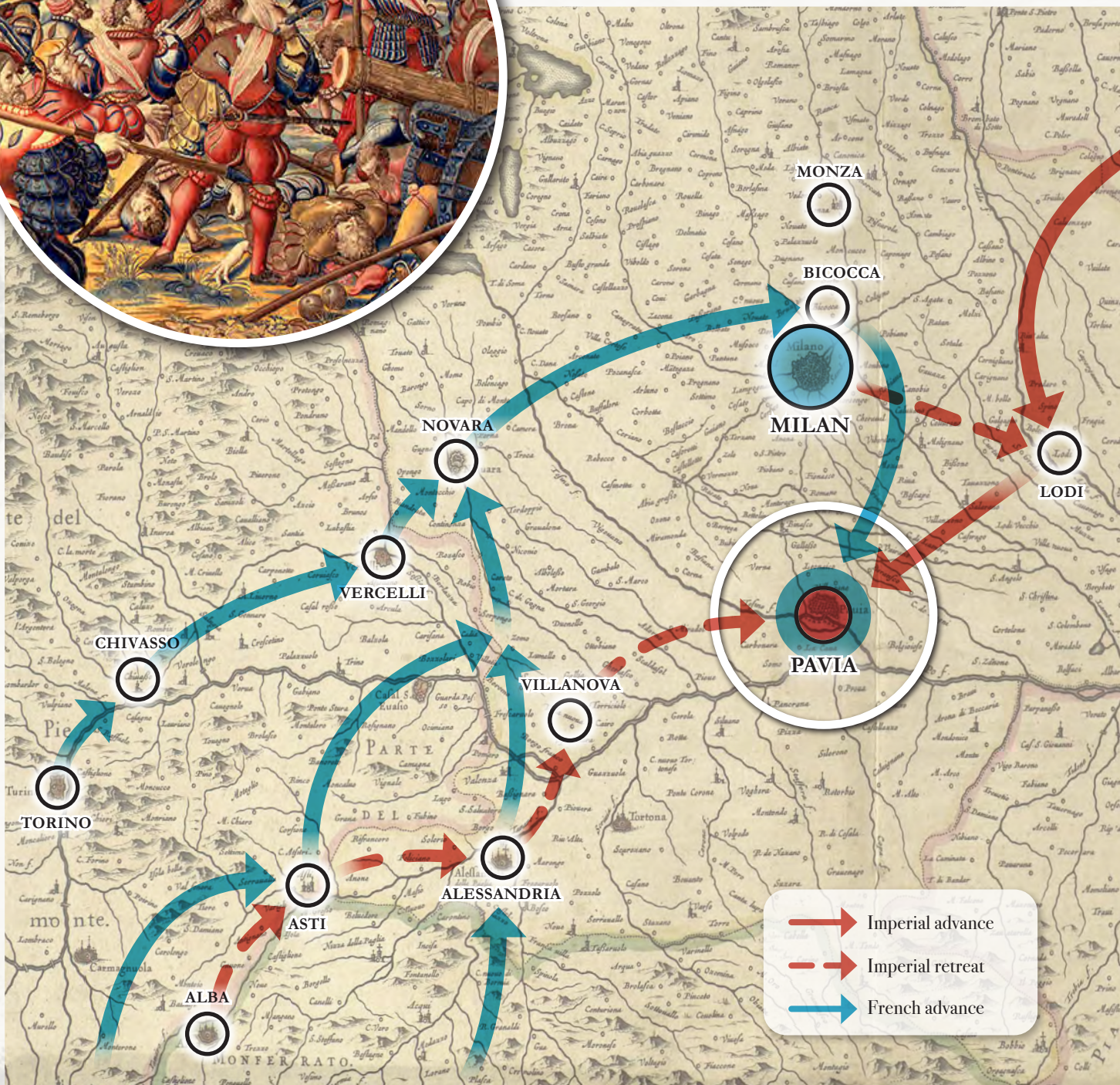
E. Varela and J. Carol/Universidad Pública de Navarra

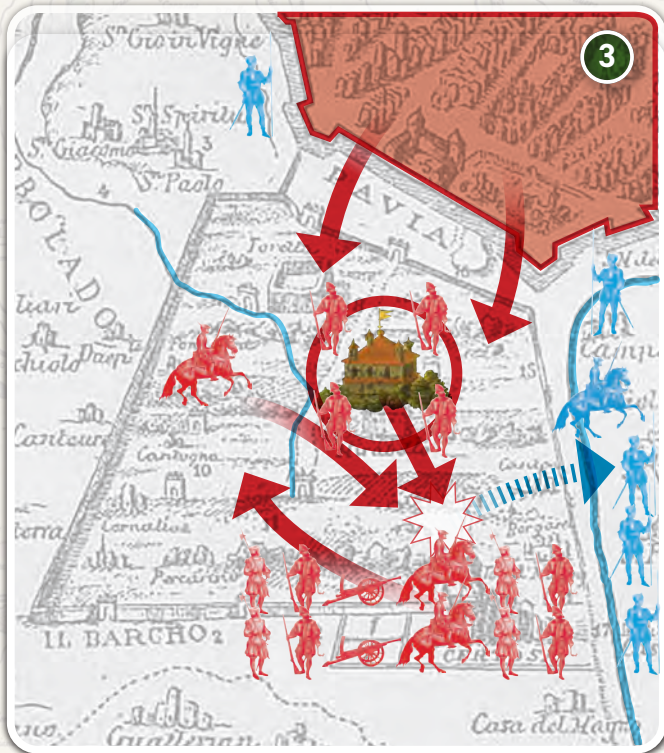
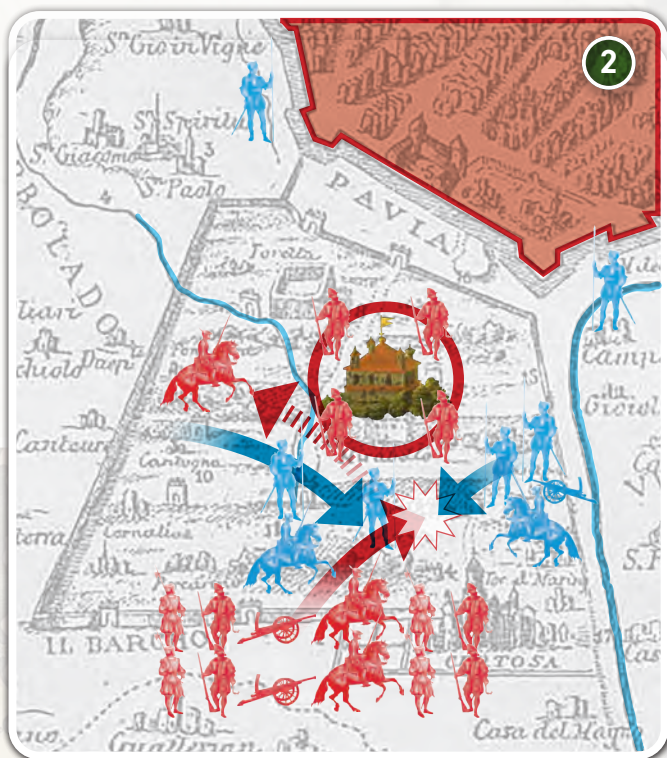
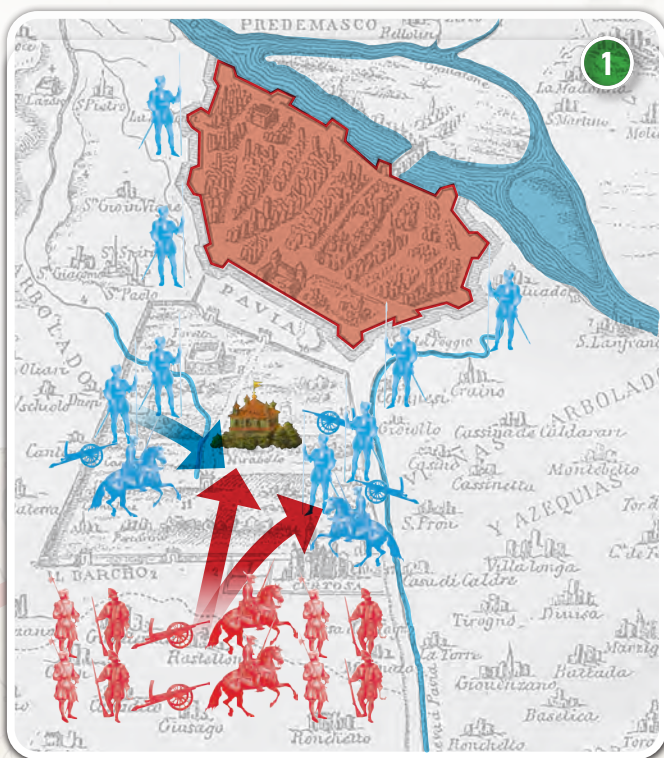
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A SUCCESS FOR HISTORY

The battle fought outside the walls of Pavia consecrated the Spanish infantry as the backbone of the armies of the Habsburg monarchy

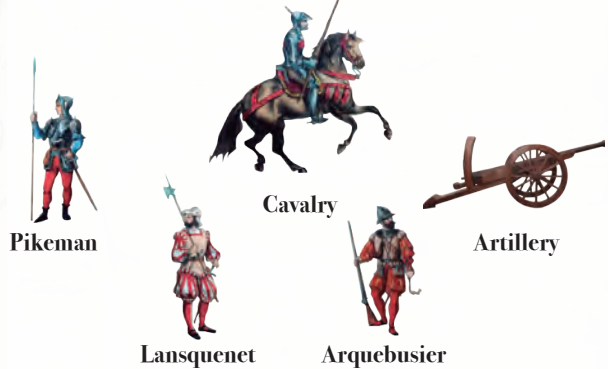
THE umpteenth battle between the Spanish and the French over Italy took place in Pavia in 1525. However, it was not just another battle. After the defeat of France in the Battle of Bicocca (1522), Spanish rule in northern Italy increased and even spread to Provence in France. The French king, Francis I, counter-attacked. He recaptured Milan and caused the forces of King/Emperor Charles to retreat to Lodi and Pavia, which he unsuccessfully besieged with a powerful army. The Imperials of Lodi came to support their forces, reinforced with 12,000 men from Austria. Together they achieved victory and captured the French monarch.





UNITS USED IN COMBAT

BOTH fighting parties deployed cavalry, artillery and infantry units in the hope of claiming victory. Among others, Swiss pikemen and Italian troops fought for France, although its most outstanding force was the gendarmerie, the elite of the heavy, well-equipped French cavalry. On the Imperial side, Pescara's arquebusiers were decisive in the victory, while Frundsberg's lansquenets were instrumental in restoring the Imperial forces.



Pavia, 24 February 1525

① Before dawn the Imperial forces (some 20,000 infantrymen, including Pescara's arquebusiers and Frundsberg's lansquenets, and 2,000 horses) enter Mirabello Park, next to the walls of Pavia. One group takes the castle, while the rest of the force attacks the bulk of the French army, led by its king. On the right flank, the French respond with 5,000 infantrymen and 1,000 horses and, on the left, with artillery, 6,000 infantrymen and 3,000 horses. ② The Imperial success over the centre of the stronghold contrasts with the problems of the main contingent, kept at bay by the French who, in addition, attack its rear guard from the right, causing dis-

ruption and the retreat of the cavalry. ③ Francis I believes he is winning and sends the gendarmerie to the main front line. However, his artillery has to cease fire in order to prevent his own horsemen from being injured. The Imperials, in turn, gain some troops in the form of Pescara's arquebusiers who, after securing the castle and the cavalry, reorganise with the support of Frundsberg's lansquenets, who also help to rout the enemy's right flank. In addition, Leyva, the leader of the besieged Pavia, sends troops from the town to prevent the besiegers from joining the king. By 8:00 a.m., the Imperials have defeated and captured Francis I.



From left to right, Constable Charles de Bourbon and Georg von Frundsberg. Below, Antonio de Leyva and the Marquis di Pescara, the main leaders of the Imperial armies that gave King Charles the famous Italian victory.



Painting depicting the French 16th-century gendarmes, the heavy cavalry elite of the time, which was severely damaged by the Spanish fire in Pavia.

Alberto Altdorfer

the late payment of wages. Leyva was, in fact, short of food and, more importantly, funds to pay the mercenaries, and thus instructed his men to melt down the gold and silver from the churches to mint money.

Meanwhile, in Lodi, the Imperial army was being reinforced by a contingent of 12,000 Germans that Bourbon had recruited in Austria. Among them were the lansquenets of the renowned Georg von Frundsberg.

The time had come to confront the French threat. With no time to lose, Lannoy took command of some 25,000 men and marched to the rescue of Pavia, arriving outside the besieged town in early February 1525.

BATTLE SITE

The army of the King of France was well protected in the Mirabello Park, a walled hunting reserve north of Pavia owned by the Visconti family.

The arrival of the Imperials to raise the siege of the stronghold did not particularly alarm Francis I, who underestimated the Spaniards and repeatedly challenged them to a pitched battle.

The monarch, however, contained his eagerness to go on the offensive, hoping that the Imperial army would disintegrate due to its own hardships and that the Italian states would make a declaration in

favour of France. His intention was to catch up with and destroy the Imperial troops when they had no other choice but to retreat from Pavia.

PREVIOUS SKIRMISHES

When the Imperials realised how strong the French forces were in Pavia, they spent three weeks launching the infamous “camisades”, or nighttime incursions. These put the besiegers on their guard to the point where they were impervious to false alarms. However, this tactic —at which the Marquis di Pes-

cara was an expert — was insufficient to force the French to abandon their fortified positions surrounding the town.

Unavoidably, a decision had to be made because of the Imperial side’s severe shortage of supplies and money.

Even though the first idea was to retreat from Pavia, Pescara argued that the French would not allow them to do so without sending their forces after them. It was, therefore, necessary to anticipate events and launch a surprise attack on their camp at Mirabello.

“If we want to have something to eat tomorrow, that is where we have to go to get it”, he told the Spanish infantry. Lannoy and Bourbon accepted the marquis’s advice and the operation was set for the early hours of 24 February 1525: the feast day of St Matthias and also Charles V’s 25th birthday.

ACTION BEGINS

Two Spanish squadrons were dispatched the night before to breach the Mirabello Park’s northern wall, where Francis I sought refuge with a large portion of his troops.

After setting their own tents on fire to simulate a retreat, the Imperials set out, wearing white shirts over their armour to distinguish themselves from the enemy, and managed to penetrate the park before daylight. Their forces consisted of 20,000 infantrymen and 2,000 horses.



Biblioteca Central Militar

“An authentic account of the battle of Pavia” (1839), a work on the subject published by the Ministry of Defence in 2024, and the “famous comedy” by Monroy (1763), examples of the interest in the battle.



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Biblioteca Digital de Castilla y León

HISTORY

Alerted by their sentries, the French quickly deployed 5,000 infantrymen and 1,000 horses on their right flank, and 6,000 infantrymen and 3,000 horses on the left. Meanwhile, another 10,000 troops remained engaged in the siege of Pavia. The Imperial vanguard advanced towards the Mirabello castle, where the French king was thought to be spending the night, while the bulk of the army, formed in column, marched towards the French left flank, where Francis I was actually to be found.

The Spanish arquebusiers met little resistance and easily occupied the small fortress, threatening to split the enemy's army. However, the French right flank reacted strongly and launched an attack on the Imperial rear guard, disorganising it and capturing its cannons. Simultaneously, on the other flank, the Gallic artillery fired resolutely against the Imperial troops, halting their advance.

PIVOTAL MOMENT

In this situation, Francis I believed that the battle was tilting in his favour and got ready to strike the coup de grâce with his gendarmerie, the elite of the French cavalry.

Although the attack from the French left flank was spectacular, the artillerymen had to hold their fire to avoid injuring their own units.

When the Imperial cavalry, mainly Spanish, confronted the opposing cavalry, a bloody combat broke out that favoured the French since they were more numerous and better armed.

Pescara, noticing that the Spanish horses were beginning to lose ground, sent his arquebusiers to reinforce the flanks and allow the horsemen to pull themselves together behind a stream that ran through Mirabello.

Having been instructed not to take any prisoners, the arquebusiers took advantage of the forested area and started to ruthlessly mow down the French cavalrymen. Frundsberg, in the meantime, reorganised the Imperial rear guard, forcing the French right flank to retreat.

Leyva, upon learning of the general attack and despite suffering

from gout, also led a vigorous attack from Pavia to prevent the enemy from sending reinforcements to the park.

By 8 a.m., the French were already fighting in disorganised groups, outnumbered everywhere by the Imperial troops, and only thinking of leaving the battlefield.

Francis I also attempted to leave the park, but, assaulted by the cavalry and

under artillery fire, he was struck down and trapped beneath his horse.

IMPERIAL VICTORY

Three Spaniards competed for the honour of capturing the monarch, who in fact met a better fate than his nobles, who were decimated by the wrath of the arquebuses.

Once the King of France had surrendered, with his cavalry beaten and his infantry in full retreat, the defeat was completed with the disbanding of the Swiss mercenaries as they fled across the Ticino. This turned into an absolute disaster, bringing the death toll of the French army to 15,000, while on the Imperial side it amounted to barely 500.

The outcome of the Italian campaign and its denouement in Pavia could not have been more adverse for Francis I, who ended up with his powerful army destroyed, his nobility massacred, and he himself imprisoned in the hands of his main rival. In a letter to his mother he confessed: "There is nothing left to me but honour, and my life, which is saved".

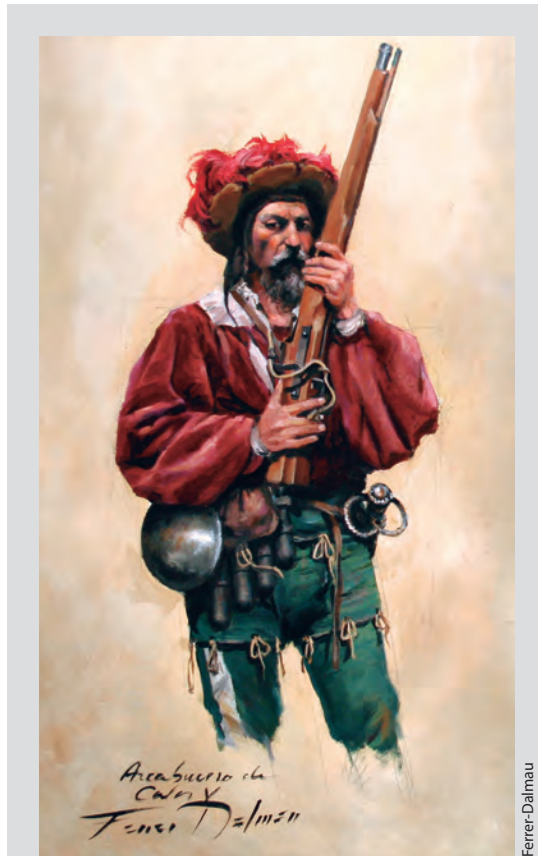
Once he was sent prisoner to Spain, he signed the Treaty of Madrid (1526) with Charles V in which, in exchange for his release, he renounced his claims over Italy. He later claimed that he had been forced to sign this treaty and violated it.

The war continued until his successors signed the Peace of Cateau-Cambrésis (1559), which left Italy under Spanish rule.

Five hundred years have passed since the victory of Pavia, one of the battles in which the increasing firepower of the Spanish infantry played a decisive role under the leadership of the Marquis di Pescara.

A worthy inheritor of the Great Captain's strategic tactics, Pescara knew how to get the best out of his men through his personal courage and camaraderie, turning the Spanish troops into the backbone of the Imperial armies and contributing to lay the foundations of a military power that dominated Europe for over a century.

Germán Segura García



Ferrer-Dalmau

Spanish arquebusiers, like the one in the picture, were decisive in the Imperial victory.

Below, the Peace of Cateau-Cambrésis (1559), which sealed Spanish rule in Italy.



SPAINSAT NG-1 EN ROUTE TO FINAL ORBIT

Spanish satellite to provide secure communications for the Armed Forces among the most advanced in Europe

Launch of the SpainSat NG-1 on a Falcon 9 rocket on 30 January. On the right, assembly of the communications payloads.



SPAIN'S secure communications satellite SpainSat NG-1 is on its way to its final orbital position in space, following the successful lift-off of its Falcon 9 rocket, which took off from the Kennedy Space Centre in Florida in the early hours of 30 January 2025 at 2:34 a.m. Central European Time. This cutting-edge spacecraft is travelling through outer space propelled by five electric engines and with its large solar panels fully expanded. Its first signs of life have already been received on Earth, which proves that it is working properly in orbit. With a wingspan of 42.9 metres and a maximum take-off mass (MTOM) of 6.1 tonnes, the spacecraft has undergone numerous checks since its departure into space to verify its vital signs and overall electronic health.

The first satellite of the SpainSat Next Generation programme is the result of a public-private partnership between the Ministry of Defence and Hisdesat, an operator of government services. The initiative, which represents a total investment of about 2,000 million euros and the highest degree of participation of Spanish companies —45%, according to Hisdesat—, has involved the collaboration of almost the entire national space sector. Its *raison d'être* is to provide the Spanish Armed Forces, ministerial departments, and high-level State institutions with an advanced autonomous encrypted system of strategic communication services in X-band, military Ka-band, and UHF.

The General Defence Staff has defined the operational standards while the



Pepe Díaz

Hisdesat's new Satellite Control and Operation Centre was inaugurated on 29 November 2024 in Hoyo de Manzanares (Madrid) by the Secretary of State for Defence, Amparo Valcarve, who was accompanied by the company's CEO, Santiago Bolibar, its chief executive officer, Miguel Ángel García Primo, and the Chief of Staff of the Air and Space Force, Francisco Braco.



Pepe Díaz

technicians have fulfilled the stringent specifications established by the Spanish Ministry of Defence. It provides communication coverage to nearly two thirds of the Earth's surface —all of South America, most of the United States, Africa, Europe, the Middle East and Asia as far as Singapore—. Hence, the Atlantic Alliance, the European Commission and third countries, such as the United States, Greece, Norway and Portugal are interested in using its communication capacities.

An official delegation headed by the Secretary of State for Defence, Amparo Valcarve, accompanied by the Chief of Staff of the Air and Space Force, General Francisco Braco, and the Chief of the Naval Staff, Admiral Antonio Piñeiro, travelled to Florida to watch the launch of the NG-1 into orbit using a Falcon 9.

Representatives from other ministries travelled to Florida with the aforementioned

The satellite began to travel alone towards its final destination at an altitude of 36,000 km

senior officials, as well as Hisdesat's CEO, Santiago Bolibar, and its chief executive officer, Miguel Angel García Primo.

At the launch of the satellite, half an hour after successfully completing the most critical and risky moments of a space mission —the lift-off and the first seconds of the ascent flight— the cameras on the Falcon 9 broadcasted how the SpainSat NG-1 —with its large 7-metre-long antennas, the size of a minibus— successfully separated from the second stage of propulsion at 767 km above the Earth.

Once the Falcon 9 ejected and released the SpainSat NG-1, it began to describe an elliptical orbit with an apogee of 68,000 km and then started to travel alone towards its final destination at 29° East of the geostationary orbit, so as to reach an altitude of 35,786 km, almost three times the diameter of the Earth. For the Secretary of State for Defence, watching the successful launch and release of the NG-1 was a “unique” experience, in which “everything went very well, excellent”, and this “represents a success for Hisdesat,

the Ministry of Defence, the entire Spanish aerospace industry, and for society as a whole”.

In Admiral Bolibar's opinion, Spain has built the “most advanced communications satellite in Europe and almost in the world, which now has to accomplish its mission”. According to Miguel Ángel García Primo, the launch was “a moment of satisfaction, of having completed a job well done and seeing how the work of thousands of engineers in Spain and the rest of Europe comes to fruition”.

The jewels of the SpainSat NG: its active antennas

BASED on Airbus' Eurostar Neo platform, the new Spanish satellite is an entirely new software-defined device, with digital technology and all-electric propulsion. Its crown jewels are its two active X-band planar antennas, which may be reconfigured to transmit and receive.

They are the result of 40 years of continuous investment, which has provided national strategic sovereignty to satellite communications thanks to the efforts of Spanish industries such as Airbus Crisa, Alter Technology, Arquimea, GMV, HV Sistemas, Indra, Inventia Kinetics, Sener and TecnoBIT, all led by Airbus Space Systems in Getafe (Madrid).

The two new antennas have been designed to resist anti-jamming and anti-spoofing technology. Both are high power antennas and, thanks to the transparent digital processors of Thales Alenia Space Spain, they can quickly modify the configuration and electronic pointing mode of their communications, both in terms of signal size and quality, depending on user demand and environmental conditions.

For the transmission of large volumes of data, SpainSat NG-1 is fitted with six pieces of equipment and parabolic antennas in military Ka-band, manufactured by Thales Alenia Space Spain. It also has two other antennas —transmit and receive antennas— for the UHF band, which are extremely useful for connecting army, navy and air force aircraft.

The next generation of SpainSat satellites are shielded against the so-called HANE effect, an acronym for High Altitude Nuclear Explosions. These are the electromagnetic pulses caused by nuclear explosions in outer space, which propagate over great distances and whose thermonuclear wave devastates or degrades electronic components and puts everything within 360 degrees of its path out of service.



SPACE



Workers of Thales Alenia Space, the company responsible for the UHF and military Ka-band payloads of the Spanish communications satellite.

The SpainSat NG-1, added the executive officer, is “at the forefront of Europe” and will help Hisdesat to join “a select group of powers —along with the United States, France, Italy and the United Kingdom— to provide NATO with secure satellite communications”.

Hisdesat organised a live broadcast of the launch from the Satellite Control and Operation Centre set up by the company in the town of Hoyo de Manzanares, 37 km away from Madrid. A large group of civilian and military authorities who did not attend the launch from Florida were gathered there, including the Director of the National Intelligence Centre, Esperanza Casteleiro, and the Director of the National Security Department, Brigadier General Loreto Gutiérrez.

The new Satellite Control and Operation Centre is part of the SpainSat NG programme and has been built in parallel with the development and manufacture of the satellites. It was inaugurated in November 2024 and is already fitted out to assume command of the NG-1 as soon as it enters into service. It has a similar alternate centre on the island of Gran Canaria, specifically at the installations of the Maspalomas Space

Station, under the National Institute for Aerospace Technology (INTA).

FIRST CONTACT

The technicians of Airbus Space Systems, the primary co-contractor of the SpainSat NG industrial programme, who operate from Airbus DS Toulouse, France, are in charge of the activities involved in the Launch and Early Orbit Phase (LEOP), which is the time frame between lift-off and when the satellite reaches its final orbit in the summer. These technicians were in charge of making the first contact with the

In early summer, the SpainSat NG-1 will be positioned close to the Xtar-Eur to replace it

satellite and determining, through a telemetry system, the exact height and orbit of the NG-1 in space after separating from the Falcon 9. From then on, the technicians in Toulouse sequentially activated the various on-board systems, ordered the deployment of the large solar panels, oriented them towards the Sun and verified that the on-board batteries were charging correctly and generating electrical power.

They also checked the temperature on board, started up some key equipment and reviewed its status. Without wasting any time, they released the robotic arms of SpainSat NG-1’s ion propulsion engines to begin the ascent manoeuvres, which, according to Hisdesat technicians, “was the most urgent task”.

In early summer, if everything goes according to plan, once in the vicinity of the orbital position at 29° East, the SpainSat NG-1 will be positioned close to the Xtar-Eur, which, in February, will mark 20 years since its launch, and will replace it. After final tests in July or August, it will take the place of the old satellite, which will rise some 300 km and be positioned in a parking orbit —also known as a graveyard orbit— where it will remain for decades.

COMING SOON: SPAINSAT NG-2

While the NG-1 is heading towards its final destination, its twin satellite, the NG-2, has already finished manufacturing and integrating all its on-board systems. And while the NG-1 will replace and enhance the capabilities of the Xtar-Eur —launched in 2005—, the NG-2 will replace the SpainSat —in orbit since 2006— and both will provide coverage for the next fifteen years.

The twin satellite of the one already travelling in space remains at Airbus Space Systems in Toulouse undergoing thermal vacuum tests. Once these are completed, it will undergo environmental vibration, acoustic and radio frequency tests. Hisdesat assures that around the summer, once the testing, overhauls, and final adjustments are over, it will be sent by air to Florida and another Falcon 9 will place it at 30° West of the geostationary orbit in September or October 2025. With this second satellite, Hisdesat and the Ministry of Defence will accomplish the objectives of SpainSat’s Next Generation programme.

Juan Pons

LAUNCH OF THE ANSER-LEADER-S

INTA completes deployment of Spain's first satellite cluster

THE National Institute for Aerospace Technology (INTA) has taken a crucial step in the development of the ANSER programme, the first constellation of nanosatellites developed entirely by Spain, with which this Ministry of Defence agency reaffirms its commitment to technological innovation and progress in space exploration. On 14 January, the ANSER-Leader-S (ANSER-L-S) was successfully launched in Vandenberg (California, USA) by a Space-X Falcon 9 booster on the Transporter-12 mission.

This important milestone completes the deployment of the ANSER (Advanced Nanosatellites System for Earth Observation Research) satellite cluster.

The programme began on 9 October 2023, when the three small nanosatellites that were to make up the constellation were launched into space by the European Space Agency's Vega rocket. Unfortunately, one of the nanosatellites was lost during the launch. The lost satellite was the "leader" and was supposed to be in charge of communicating with Earth, as well as coordinating and managing the activities of the other two "followers" that carried the payload, which in this case was a miniature hyperspectral camera. The two "followers" can carry out every task assigned to the "leader", with the exception of "seeing" the target area. However, the EU's Copernicus programme has covered this task thus far, and therefore INTA's mission has not been compromised in recent months.

The recent successful launch of the ANSER-L-S has not only made it possible to replace the leading satellite, but also to equip the system with S-band commu-

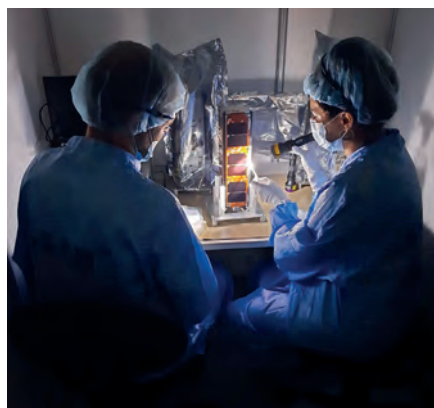


One of the nanosatellites of INTA's ANSER mission used to observe the continental waters of the Iberian Peninsula.

nications thanks to a patch antenna that INTA designed and qualified.

THE LEADER, IN ORBIT

Fifty-seven minutes after the lift-off of the Falcon 9, at an altitude of 515 km, the ANSER-L-S separated from the booster and began its journey through space. During the satellite's first pass, the Mission Centre located at the INTA's Space Centre



The operation teams continue to monitor and calibrate the ANSER-L-S systems.

in Torrejon (CEIT) received the satellite's radio beacon, thus confirming that the satellite had successfully powered up after launch.

The following day, during the second pass, and with the precise orbit determination, full contact with the spacecraft was made and its telemetry received, indicating that all the systems are operating properly.

After verifying its operability, the operation teams continue to monitor and calibrate the ANSER-L-S systems in order to fully integrate them into the operational cluster.

INNOVATIVE TECHNOLOGY

Built to the cubesat standard, these small devices are the size of a shoebox (30x10x10 cm) and weigh only 3.4 kg, much less than microsatellites, which weigh between 20 and 40 kg.

One characteristic of the ANSER satellites is the way they orbit around the Earth, which involves the expansion of their wings to modulate aerodynamic drag. "This way we can perform passive approach and separation manoeuvres between the satellites by simply modifying their orientation and thereby the profile they present as they move against the atmosphere", points out Santiago Rodríguez Bustabad, one of the project leaders. This is the first time this technique has ever been used to control the formation flight of small satellites.

In order for a set of satellites to act as a cluster, they must be able to stay together, "which is extremely difficult because the laws of orbital mechanics cause them to gradually drift apart, eventually reaching a distance that is incompatible with their mission", adds Bustabad. Conventional satellites normally have a built-in propulsion system, a small engine, with which they perform the necessary manoeuvres. INTA's nanosatellites, however, do not have a propulsion system, but are able to maintain their formation using this technique.

At the end of their operational life, estimated at two to three years, the ANSERS will self-destruct when they re-enter the Earth's atmosphere.

Victor Hernández
Photos: INTA

CÓMIC BERNARDO DE GÁLVEZ. "I ALONE"

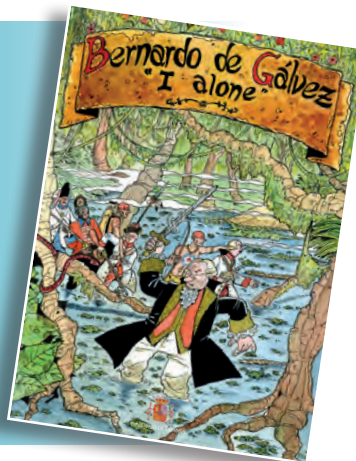
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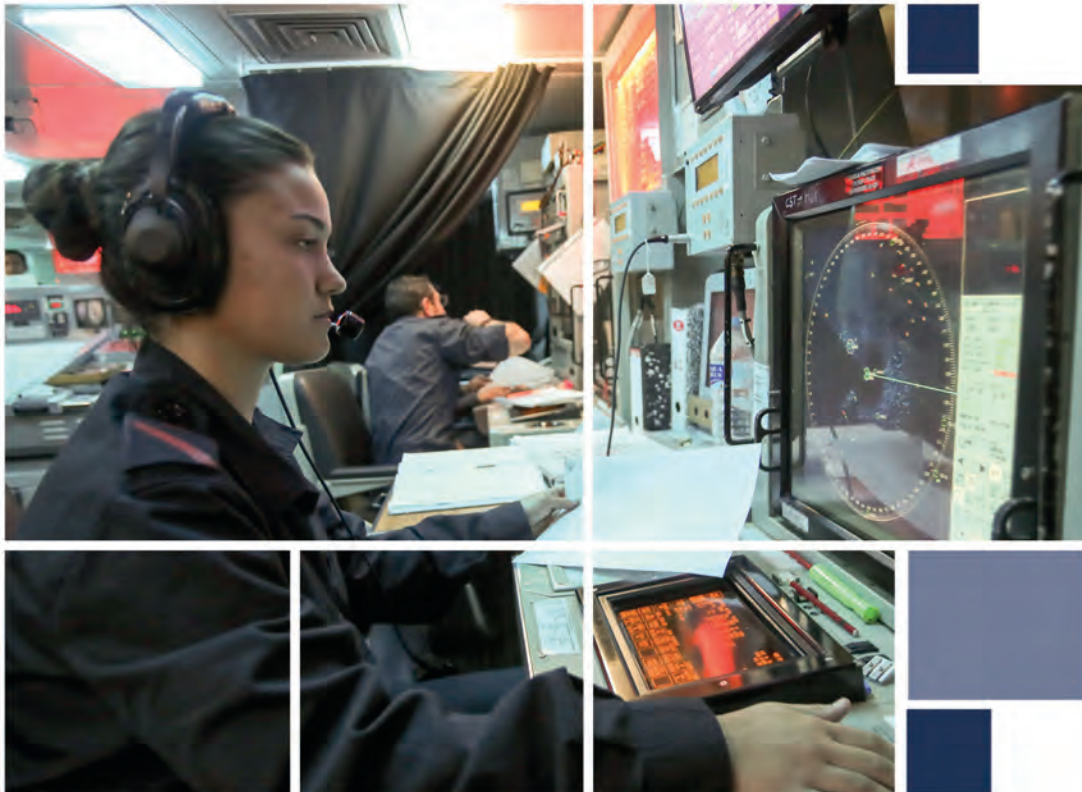
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